

# RESEARCH FOR HEALTH

2010-11  
ANNUAL  
REPORT

## *Mandate*

As defined in *The Saskatchewan Health Research Foundation Act (2002)*:

- 1) Seek and receive funding from government and non-government sources for the advancement of research.
- 2) Encourage and facilitate research in health sciences; the health-related social sciences and other health-related fields of study.
- 3) Assist the Minister of Health to develop a provincial strategy for research into matters associated with the health sciences, the health-related social sciences and other health-related fields of study.
- 4) Provide funding to persons and agencies who are conducting or proposing to conduct research projects that are consistent with the provincial strategy.
- 5) Disseminate information to members of health-related professions and to the public respecting the objects of the Foundation, the research that the Foundation supports, the results of that research and conclusions drawn from that research.

## *Vision*

Building a healthy Saskatchewan through health research

## *Mission*

The Saskatchewan Health Research Foundation contributes to a healthy province by funding and promoting excellence in health research, promoting the benefits of health research, and enhancing capacity, including securing funds to support excellent research and researchers.

## *Values*

*We believe health research:*

- is the ethical search for truth, knowledge, and understanding about human health;
- is an investment that leads to benefits for all Saskatchewan residents in many areas including health, education and the economy;
- includes both basic and applied research; and
- encompasses many dimensions including biomedical science, clinical investigation, health services and systems research, and research into the determinants of population health.

*We are committed to good governance, including:*

- good stewardship for the resources entrusted to us; and
- the highest standards of public accountability.

*We will maintain the highest standards of professional conduct, including...*

- integrity and honesty;
- respect for diverse perspectives and approaches; and
- clear, open, honest and timely communication.

*We will work co-operatively and collaboratively with others to:*

- achieve mutual goals related to advancing health research in Saskatchewan; and
- ensure research findings are shared and used as widely as possible.

*We strive for excellence and innovation in all our endeavours.*

The Honourable Don McMorris  
Minister of Health  
Legislative Assembly  
Regina, SK S4S 0B3

I am pleased to submit for your consideration the annual report of the Saskatchewan Health Research Foundation for the fiscal period April 1, 2010 to March 31, 2011.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Terry Baker', with a stylized flourish extending to the right.

Terry Baker  
Board Chair

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# BOARD CHAIR'S MESSAGE

## *Adapting to Change*

As our society continues to evolve, there is a growing emphasis on health and wellness. People are living longer and remaining active well into their senior years. They are focusing on fitness,

good nutrition and effective health care. It is an exciting time to be a part of the health sector because there is a very real and growing demand for health research.

Saskatchewan's unique demography and geography pose health challenges that require made-at-home solutions. The Province of Saskatchewan takes those challenges very seriously in both the health system and in health research.

The health research landscape has been improved through the government's support for the development of a new research centre at the University of Saskatchewan for nuclear science and nuclear medicine. At Saskatoon's City Hospital a Centre for Patient-Oriented Research has been opened. In addition, research money for fall preventions, for more efficient remote geriatric services, and for research into health lifestyles like the mediation of diabetes risk continue to be recognized as good investments.

The government has also supported the establishment of helicopter air medical services for rural and remote areas of Saskatchewan. It is enhancing the training resources at the clinical and medical teaching units at the University of Saskatchewan and Regina General Hospital. It is adding four faculty positions at the College of Medicine to ensure a stable supply of pediatricians. From the provision of quality services, to the retention of skilled practitioners, to preparing for the future, the government of Saskatchewan is answering the call of the citizens it represents.

Saskatchewan's population is calling for research as well – for cures, advanced treatments and improved therapies. It's a call that's heard outside our borders as well, and advanced nations and high-tech companies the world over are recognizing that the future depends upon a reinvestment of a substantial, measured and consistent percentage of revenues into research and development.

It is the responsibility of the Saskatchewan Health Research Foundation (SHRF) to manage the public investment, approximately \$6 million annually, in Saskatchewan's science

and innovation community. These are the funds available to help launch careers in health research, to encourage teamwork and collaboration, to attract the best minds from abroad and to retain the expertise that already resides here.

Recently, the Saskatchewan government announced a commitment to advance clinical trial research on Multiple Sclerosis (MS) liberation therapy. The liberation procedure is a potentially groundbreaking discovery for the treatment of MS; however, it is not yet proven as a scientifically valid therapy. SHRF, as the manager of the publicly funded health research process in Saskatchewan, has developed a competitive call for clinical trials and appointed an expert advisory panel.

I'd like to say a special thank you for the contributions of two departing board members, Raymond Dean and Louise Greenberg (Vice-Chair). The professional and unique contributions, along with your insight and guidance have been strongly appreciated during your terms on the Board. I'd also like to welcome Jacqueline Messer-Lepage, who joined us from the Ministry of Health and has taken on the role of Vice-Chair. Your specialized knowledge in risk and relationship management in health will be a valuable asset to our board.

The Board of SHRF will continue to maximize the benefits of our resources. We will work with partners to ensure our research community has the funding it needs to create and maintain Saskatchewan as a research destination-of-choice for industry leaders, scientists, researchers, teachers and students. Investment in health research is an investment in the future. We will continue to work toward the goals of the provincial Health Research Strategy and we will encourage partnerships from all sectors of the community.

On behalf of the board, I extend thanks to the staff and management of SHRF for its extraordinary efforts over the past year to adapt to change and to manage major initiatives on behalf of the people of Saskatchewan. SHRF continues to demonstrate its vital contribution to the health research enterprise. Perhaps more importantly, SHRF is fostering an environment of engagement and partnership that ultimately grows health research enterprise in Saskatchewan.

The benefits to the people of Saskatchewan are far-reaching and we on the Board are very proud to play a role in this very worthwhile organization.

Terry Baker  
Board Chair

# 2010-11 BOARD OF DIRECTORS



**Terry Baker, Chair**  
*Farmer, Denzil (4)*



**Louise Greenberg, Vice Chair**  
*(until November 5, 2010)*  
*Saskatchewan Ministry of Health (3)*



**Jacqueline Messer-Lepage,**  
**Vice Chair** *(from March 10, 2011)*  
*Saskatchewan Ministry of Health (0)*



**Sylvia Abonyi**  
*University of Saskatchewan (4)*



**Raymond Dean**  
*Lawyer, Regina (3)*



**Heather George**  
*Saskatchewan Ministry of Advanced Education, Employment and Immigration (3)*



**John Gordon**  
*University of Saskatchewan (4)*



**Andrew Greenshaw**  
*University of Alberta (3)*



**Shanthi Johnson**  
*University of Regina (3)*



**Gordon McKay**  
*Pharmalytics Inc. (3)*



**Cory Neudorf**  
*Saskatoon Health Region (3)*



**Tom Porter**  
*University of Saskatchewan (2)*

\* Figures in brackets indicate the number of meetings each SHRF board member attended in the 2010-11 fiscal year. There were a total of four meetings held.



## CEO'S MESSAGE

*2010-11 was a year of review and renewal.*

Early in the year we completed the mid-term evaluation of Saskatchewan's Health Research Strategy, the province's 10-year plan for stakeholders to work together to strengthen the province's health research enterprise.

The evaluation demonstrated that Saskatchewan's Health Research Strategy is a strong, innovative vision for strengthening health research in Saskatchewan that still resonates well with stakeholders in the province. Good progress has been made on its implementation, given the resources available for that purpose. After five years, it is time to consider revitalizing the Strategy to better reflect provincial and federal health research priorities. It will also be important to increase awareness of and engagement in the Strategy by all of the stakeholders who are essential to its success.

The Strategy reminds us all that research is for health. In 2010-11, SHRF demonstrated its flexibility and responsiveness by supporting two major funding announcements by the Government of Saskatchewan.

The first occurred on October 19, 2010, when the Government announced its commitment to invest \$5 million to fund clinical trials for the MS liberation procedure. SHRF is providing the scientific, ethical and financial expertise to manage this initiative that will continue through the next few operational years.

A second major funding announcement was made on March 15, 2011. The Saskatchewan government committed more than \$4.3 million for a comprehensive five-year Saskatchewan-based initiative that will assist people with disabilities, in partnership with the national Rick Hansen Institute. Of this commitment, \$1 million is being invested by the Ministry of Health for spinal cord injury related research in the province. SHRF will manage this investment on behalf of the Ministry and is working with an advisory panel to define the research parameters, make a call for

proposals, and direct the funds toward research that will have an impact for those who have sustained spinal cord injuries.

With a reduced allocation from the provincial government this year, SHRF evaluated and adjusted our operations, research funding and communication activities. I believe we've strengthened our resolve, renewed our vision, and become a more vibrant and flexible agency as a result.

While the budget reduction affected our operations and funding programs this year, we managed to maintain all programs by drawing on reserves. We will feel the full impact next year since, without reserves, we cannot afford to offer our largest program, the Health Research Group Grant Program, in 2011-12. This program plays an important role, as it funds our top researchers to work collaboratively to address pressing health issues, such as Aboriginal peoples' health and end-of-life care. Offering the program again in some form in 2012-13 is a high priority for SHRF.

We faced a lot of change this year, with two new special funding initiatives, implementing recommendations from the Strategy evaluation, and strengthening connections with partners and stakeholders. These initiatives will continue and be reflected in the new SHRF Strategic Plan 2011-2015.

Increasing linkages between research and application is essential to research making a difference for health and health care in our province. This is reflected every day by the achievements of people like Dr. Heather Hadjistavropoulos, this year's Achievement Award winner, and the many other talented Saskatchewan researchers.

All of SHRF's activities and reports are available through our website ([www.shrf.ca](http://www.shrf.ca)). It is with renewed energy that the staff and board of directors of SHRF work to build a healthy Saskatchewan through health research.

June M. Bold, MSc  
Chief Executive Officer

# SASKATCHEWAN'S HEALTH RESEARCH STRATEGY

## *A Vision to Strengthen Health Research for Saskatchewan People*

The provincial Health Research Strategy is a 10-year vision to strengthen health research in Saskatchewan and ensure research leads to benefits for citizens. The Minister of Health released the Strategy after province-wide consultations in 2004.

Two key messages came from these consultations: the need to focus research resources and energies toward areas critical to the health and well being of Saskatchewan people; and the need to build upon our current strengths and comparative advantages in health research.

The Strategy is organized into four major themes: advancing priority areas, applying what we learn, building capacity, and tracking progress and impact.

Under the first theme, five health research priority areas are identified:

1. Health needs of specific populations, particularly Aboriginal people and seniors;
2. Health systems and policy research, with emphasis: on human resources; quality improvement; primary care; mental health and addictions; innovative delivery models; and rural and remote health service delivery;
3. Determinants of health status, including early childhood development and the prevention and underlying causes of chronic and lifestyle-related disease (particularly diabetes, obesity and smoking);
4. Public health, including infectious diseases, water safety and food safety; and
5. Synchrotron-based health research.

While the Strategy designates SHRF as the lead agency for implementation, its success depends on collaboration and commitment among many agencies and individuals in Saskatchewan. A mid-term evaluation completed in 2010-11 showed that: considerable progress has been made; the plan still resonates with stakeholders; and its success continues to depend on the engagement and involvement of our partners.

# PROGRESS AND PLANS

## Strategic Themes

## Action Highlights: Looking Back at 2010-11

## Planned Actions: Looking Ahead to 2011-12

1

Advancing  
Saskatchewan's  
health research  
priority areas

With partners, moved ahead on recruiting research chairs in MS Clinical Research and Health Quality Improvement

Allocated funding for priority areas - minimum 50% in fellowships and establishment grants and 100% in groups and chairs

Developed an action plan to advance research in the priority area of Aboriginal peoples' health, resources permitting

Continue to define SK Research Chairs in priority areas, as resources permit and in partnership with others

Lead and manage two special initiatives: Clinical trials for the MS liberation procedure; and translational research related to spinal cord injury treatment and rehab

Establish an advisory panel for identifying additional ways to support and grow research in the area of Aboriginal peoples' health

2

Fostering  
the exchange and  
application of health  
research knowledge

Continued having researchers address knowledge translation in funding applications and reports, as relevant to their field

Supported conferences and workshops that focus on sharing and using research knowledge (Research Connections Program)

Continued to showcase SK health research success and achievement at our Santé Evening and other forums

Continue emphasizing knowledge translation in all programs, activities, reporting and partnerships

Continue Research Connections Program and explore other mechanisms for strengthening knowledge translation capacity

Write more stories about health research being done in SK and share them with the public and other stakeholders

3

Strengthening  
Saskatchewan's  
health research  
capacity

With partners, held a Health Data Forum on improving access to health information for research, evaluation and quality improvement

Supported the Sask-CIHR Regional Partnership Program to build capacity and advance priority areas

Completed linking of the Saskatchewan Directory of Health Researchers to the Interprovincial Directory of Researchers (a CIHR-led partnership)

Produced "Health Research Capacity in Saskatchewan: A Descriptive Report," to be updated every two years

With partners, explore developing key areas such as data access, ethics harmonization and clinical research

As resources permit, support matching programs to increase federally funded research activity in SK

Work with partners across Canada to standardize data definitions for use in various research applications and administration processes

Expand SHRF's fund development role, in consultation with stakeholders, as part of our mandate to seek additional funds to support health research in SK

4

Implementing  
the Health Research  
Strategy and  
tracking progress

Completed mid-term (five-year) evaluation of the Strategy, on behalf of the Ministry of Health, enlisting an external contractor and an expert panel

With national partners, advanced work to develop common indicators for return on investment in health research

Implemented the Balanced Scorecard approach to strategic planning and assessing outcomes

Implement recommendations from the mid-term evaluation of the Strategy, focusing on renewal, investment, performance, linkages and engagement

Continue tracking and reporting on outcomes and impact of health research funding in SK

Pursue additional partnerships to fulfill the Strategy's vision of a vibrant research sector that contributes to better health and health care

# RESEARCH FUNDING

Our funding programs are important tools for helping us fulfill various aspects of our mandate and for contributing to the themes outlined in the provincial Health Research Strategy. For example, SHRF allocates funds for research in the provincial priority areas, supports knowledge translation through our Research Connections program, and builds health research capacity by supporting early career development, training, and collaborative groups of researchers working towards common goals.

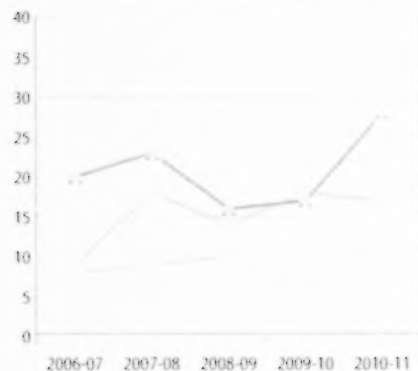
Funding programs at SHRF fall into two categories: SHRF Programs and Partnership Programs. SHRF Programs are administered solely by SHRF. Partnership Programs are collaborations with other funding agencies and organizations, and may be administered by SHRF or our funding partners.

## SHRF Programs

SHRF funding programs have a strong developmental focus, helping Saskatchewan researchers in entering the highly competitive national scene and contributing to an overall supportive health research environment in the province. We continue to encourage and support a broad range of human health research including basic biomedical science, clinical research, health services and system research, and research into the cultural, social and environmental determinants of population health.

Our Board approved \$3.7 million for new research grants and fellowships in 2010-11.

Number of Applications by Program and Year



Success Rates by Program and Year

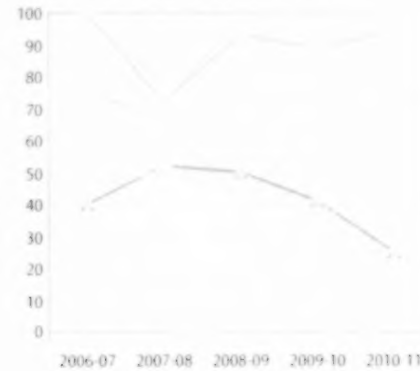


Table 1: SHRF Applications Received, Recommended, and Awarded 2010-11

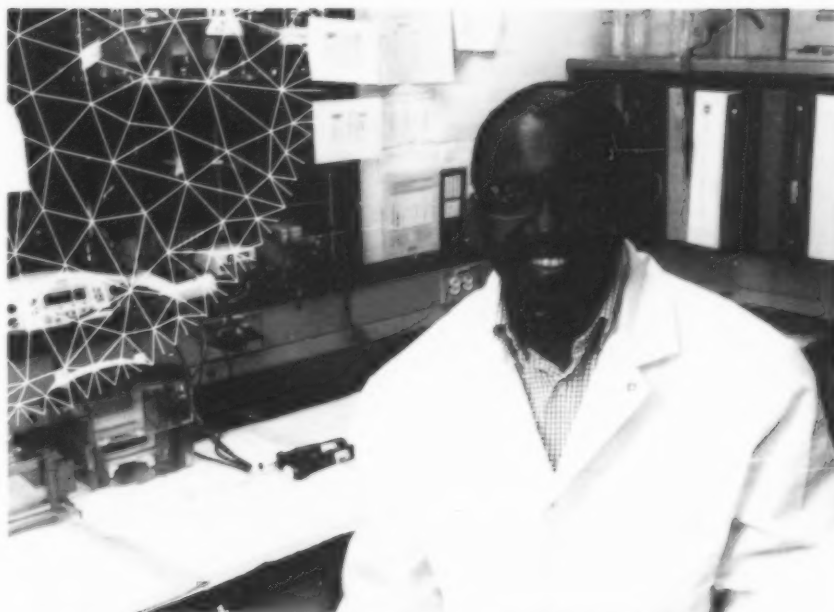
SHRF Programs	Received		Recommended		Awarded*		
	No.	Amount (\$)	No.	Amount (\$)	No.	Term (yrs)	Amount (\$)
Postdoctoral Research Fellowships	28	2,800,000	11	1,100,000	7	2	700,000
New Investigator Establishment Grants	30	2,269,115	13	1,026,631	13	2	1,026,631
New Investigator Equipment Grants	11	305,663	5	129,930	5	n/a	129,930
Research Connections Grants	17	64,450	16	59,450	16	n/a	59,450
Health Research Group Grants							
Phase I	7	210,000	5	150,000	5	2	150,000
Phase II	4	1,191,171	3	891,171	3	3	891,171
Phase III	2	1,488,359	2	1,488,359	1	3	750,000
<b>Total</b>	<b>99</b>	<b>\$ 8,328,758</b>	<b>55</b>	<b>\$ 4,845,541</b>	<b>50</b>		<b>\$ 3,707,182</b>

\* Awarded amounts are for the full term of the grant (see also Grant Selection Process section)

# NEW INVESTIGATOR

## ESTABLISHMENT AND EQUIPMENT GRANTS

These grants provide up to \$40,000 per year for two years to university faculty who are new or newly resident in Saskatchewan to help them establish independent health research programs within the province, and achieve the research productivity necessary to obtain longer term and more substantial funding from national and other external agencies. Recipients may also apply for New Investigator Equipment Grants of up to \$30,000 over a period of six months to acquire major equipment essential to their research that is not available through other means.



2010 TOP RESEARCHER AWARD: Biomedical, Establishment

### *Kiven (Erique) Lukong*

Biochemistry, Medicine, U of S  
Biomedical New Investigator Establishment and Equipment

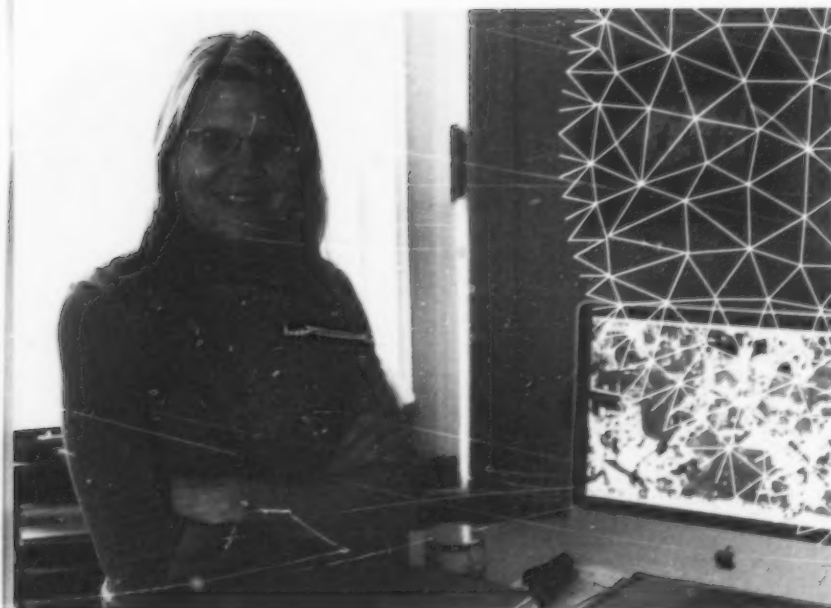
#### *Cause or effect? The role of BRK in breast cancer*

Over 60 per cent of breast tumour patients have elevated levels of Breast Tumour Kinase (BRK) protein. That's over 13,000 of the 22,000 women who are diagnosed each year. Dr. Erique Lukong wants to know why.

He wants to know why BRK doesn't show up in healthy women. He wants to know why it doesn't appear in all breast cancer patients. He wants to know if BRK causes the cancer, occurs alongside it, or materializes at some stage during the progression. Most importantly, Dr. Lukong wants to know if altering the levels of BRK in breast cancer cells will affect breast cancer cell growth.

Dr. Lukong's laboratory is the only lab to date in Canada studying BRK. He is investigating the cellular implications of depleting or introducing BRK in various breast cancer cell types. These studies are beginning to unravel the cellular processes affected by the presence of BRK in breast tumours.

Dr. Lukong's goal is to determine that the presence of BRK does indeed initiate and/or stimulate breast tumours. In turn, that will indicate that a viable therapeutic strategy to treat breast cancer patients is to block the expression of BRK. Such a treatment may, by itself or in conjunction with existing breast cancer drugs, provide a solution to a serious health issue and the most common cancer in women worldwide.



## 2010 TOP RESEARCHER AWARD: Socio-Health, Establishment

### Lori Hanson

Community Health and Epidemiology, Medicine, U of S  
Socio-Health New Investigator Establishment and Equipment

#### *Making midwifery equally accessible to all*

With ongoing implementation and expansion of midwifery across the diverse mixes of rural, urban and Aboriginal communities in the health regions of Saskatchewan, Dr. Lori Hanson is exploring how midwifery care can be implemented in an equitable and accessible way.

Dr. Hanson is first exploring other provinces' experiences with midwifery implementation around issues of accessibility. In this first phase, she is gathering policy documents and published literature together with primary data generated through key informant interviews. The information is gathered in selected health regions in three Canadian provinces where midwifery has been in place for over five years.

In the second phase of research, Dr. Hanson will focus on understanding the context of midwifery implementation in the socio-demographically diverse Saskatoon Health Region (SHR) where health equity is a priority. Analyses of key informant interviews, stakeholder discussions and relevant documents will identify contextual, organizational and programmatic factors that influence the implementation of midwifery in the SHR.

Findings from the research will contribute to equitable access to midwifery care for the diverse populations of Saskatchewan women. It will support new national priorities for maternal child health, provincial health research priorities and a growing need within our health system.

## New Investigator Establishment Grants

### Edward Atkins

Ophthalmology, Medicine, U of S  
Optic nerve imaging program using synchrotron radiation

### Ildiko Badea

Pharmacy and Nutrition, U of S  
Design and development of targeted multilayered lipid-based nanoparticles for non-viral mucosal gene delivery

### Carolyn Brooks

Sociology, Arts and Science, U of S  
In our own words: Understanding women's violence in intimate partner relationships

### Nicholas Carleton

Psychology, Arts, U of R  
Modifying cognitive biases in social anxiety: Exploring new avenues for treatment

### Kaushik Desai

Pharmacology, Medicine, U of S  
Methylglyoxal (a glucose metabolite) induced insulin resistance: Mechanisms and prevention?

### Rachel Engler-Stringer

Community Health & Epidemiology, Medicine, U of S  
The availability, accessibility and quality of food in Saskatoon neighborhoods for families with children

### Lori Hanson

Community Health & Epidemiology, Medicine, U of S  
Equity in access to midwifery care in the Saskatoon Health Region

### Shelley Kirychuk

Medicine, Medicine, U of S  
Respiratory disease in workers new to the Saskatchewan swine production industry

### Joshua Lawson

Medicine, Medicine, U of S  
The prevalence and severity of asthma among children in a north-central Saskatchewan region

### Scot Leary

Biochemistry, Medicine, U of S  
Mitochondrial multiplicity: structure-function analyses of the roles of human SCO proteins in COX assembly and the regulation of cellular copper homeostasis

### Matthew Loewen

Veterinary Biomedical Sciences, Veterinary Medicine, U of S  
Identification of therapeutic targets to regulate mucus production for treatment of respiratory disease

### Kiven (Erique) Lukong

Biochemistry, Medicine, U of S  
Breast tumor kinase: Role in oncogenic signaling and gene expression

### Hassanali Vatanparast

Pharmacy and Nutrition, U of S  
Nutrition and health among recent immigrant and refugee children in Saskatoon, Saskatchewan

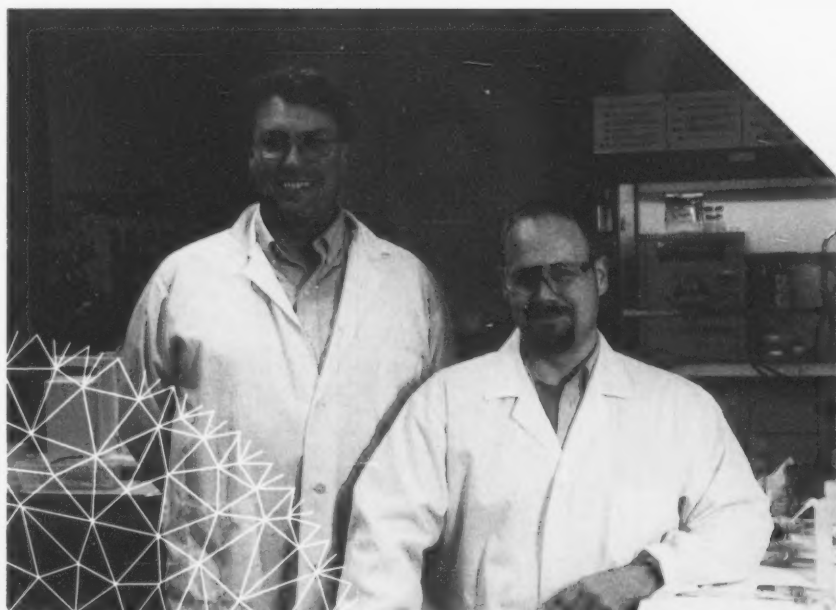
\* indicates accompanying Equipment Grant.

# POSTDOCTORAL

## RESEARCH FELLOWSHIPS

This program offers a full-time training opportunity for high-quality candidates in health-related fields. Fellows are supervised by experienced, active researchers to further develop their research skills and equip themselves for a career in health research. The program offers a salary stipend of \$45,000 per year for two years and a research allowance of \$5,000 per year for two years. A top-up incentive award of \$5,000 per year for up to two years is available for successful SHRF applicants who are also successful in obtaining a Tri-Council Postdoctoral Fellowship to be held in Saskatchewan.

There was a 20 per cent reduction in the Research Fellowship funding envelope this year due to a reduction in SHRF's provincial funding.



2010 TOP RESEARCHER AWARD: Biomedical, Fellowship

### *Michael (Jake) Pushie*

Geological Sciences, Arts and Science, U of S  
Seated on right with supervisor Graham George  
Biomedical Postdoctoral Research Fellowship

#### *Synchrotron provides insight into neurodegenerative diseases*

Diseases such as Mad Cow, Alzheimer's, Parkinson's, Wilson's and hemochromatosis (iron overload) are the targets of Dr. Jake Pushie's research. He has found, in healthy individuals, that a certain protein, called the prion protein, exists in abundance in the central nervous system. Dr. Pushie believes that when changes are made to the amount of this protein, there is an associated disruption of the levels of naturally occurring metals - copper, iron and zinc - in the brain.

Dr. Pushie is part of the Environmental Science Research Group, which employs a combination of synchrotron-based X-ray techniques to map the metals in the brain. Those techniques are made possible by the Canadian Light Source synchrotron, located on the University of Saskatchewan campus. Using computational chemistry and positron emission tomography (PET), the group is developing detailed pictures to show how altered trace metal levels in the brain are common to neurodegenerative diseases.

Dr. Pushie's research will provide the evidence to confirm the prion protein's role in the integral cellular machinery for regulating trace metals in the brain and nervous system. The findings will be an important contribution to the detailed molecular and anatomic knowledge of which metals and regions of the brain are preferentially affected in individuals with neurodegenerative disease. Such knowledge will encourage further study into the potential for altering the prion protein as a customized therapy for the treatment of individuals with neurodegenerative diseases.



2010 TOP RESEARCHER AWARD: Socio-Health, Fellowship

## Rita Gruodyte

Kinesiology, U of S  
Right with supervisor Adam Baxter-Jones  
Socio-Health Postdoctoral Research Fellowship

### *You're never too young to fight osteoporosis*

Millions of Canadians, mostly elderly, are affected by osteoporosis, a serious bone disease that causes pain, disability and death. Although osteoporosis manifests itself in old age, its roots can be found in childhood. Researchers have shown that people who are physically active as children have stronger bones, as youth and as they enter adult life. If the bone health advantages can be maintained across the individual's lifespan, the risk of developing osteoporosis could be reduced.

Dr. Rita Gruodyte is identifying the optimal time and type of exercise to bring about these childhood benefits. The purpose of her project is to identify whether participation in a recreational gymnastic sports program as a young child of four to six years of age confers bone health benefits in adolescence (10 to 12 years of age). In 2006, a group of 178 four- to six-year-olds were recruited from gymnastic and non-gymnastic sports programs and followed for four years. These children are now being reassessed for a further two years as they enter adolescence (10 to 12 years of age). Annual assessments include measures of growth, bone health, physical activity and diet.

Dr. Gruodyte's research will reveal whether recreational low intensity gymnastics involvement as a young child can provide a safe and viable means of improving future generation bone health and thus reduce the incidence of osteoporosis in later life. This information can then contribute to improving the quality of life for the elderly, and reducing the economic burdens associated with the disease.

## Postdoctoral Research Fellowships

### Meridith Burles

Nursing, U of S  
(Supervisor: Lorraine Holtslander)  
*Exploring uncertainty and chronicity in women's experiences of ovarian cancer*

### Charles (Randy) Duncan

Sociology, Arts and Science, U of S  
(Supervisor: Colleen Dell)  
*Developing and testing a culturally competent measure of effectiveness of equine assisted learning programs with First Nations youth who abuse solvents*

### Rita Gruodyte

Kinesiology, U of S  
(Supervisor: Adam Baxter-Jones)  
*The effects of recreational gymnastics at an early age on long-term bone health*

### Vaigundaragavendran Jegadeesan

Anatomy and Cell Biology, Medicine, U of S  
(Supervisor: Valerie Verge)  
*Activity/BDNF-dependent mechanisms underlying peripheral nerve regeneration*

### Sonja Mertins

Vaccine and Infectious Disease Organization, U of S  
(Supervisor: Andrew Potter, Brenda Allan)  
*Campylobacter jejuni vaccine development*

### Michael (Jake) Pushie

Geological Sciences, Arts and Science, U of S  
(Supervisor: Graham George)  
*The prion protein's role in brain metal homeostasis*

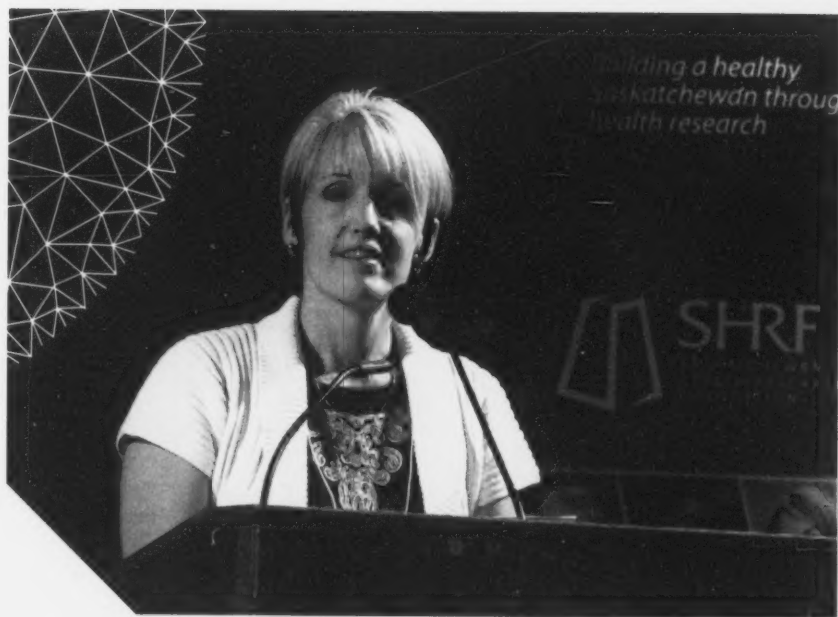
### Yufeng Xie

Oncology, Medicine, U of S  
(Supervisor: Jim Xiang)  
*A combined early and late HIV-1 protein-specific exosome-targeted T cell vaccine capable of breaking immune suppression and stimulating CD8+CTL responses in absence of CD4+T cells: A future therapeutic HIV-1 vaccine.*

# RESEARCH

## CONNECTIONS GRANTS

This program provides up to \$10,000 per event in matching funds to support health research conferences, workshops, research days and similar events that are organized and held in Saskatchewan. It is intended to promote advancement and exchange of new health research knowledge, encourage linkages among multiple stakeholders, help address knowledge gaps in areas of particular importance to the province, and nurture the development of the next generation of health researchers.



### *Spotlight on Research: Alzheimer's Disease and Related Dementia*

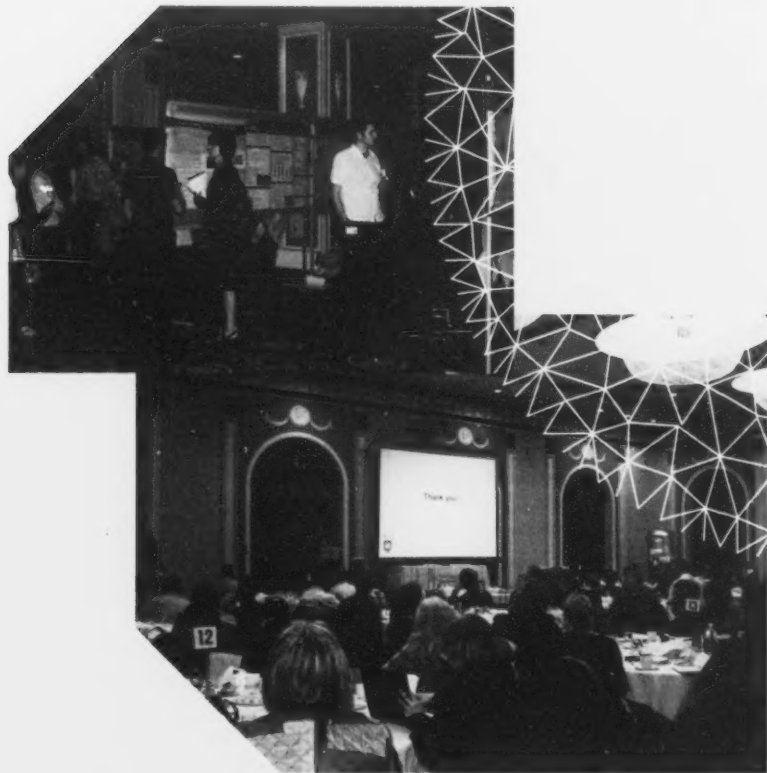
Joanne Bracken, Alzheimer Society of Saskatchewan  
Research Connections Grant

#### *An evening to remember*

In September 2010, The Alzheimer Society of Saskatchewan hosted the Alzheimer's research awareness evening, "Spotlight on Research: Alzheimer's Disease and Related Dementias," in conjunction with the annual provincial conference for caregivers. Approximately 200 guests included persons with dementia, family caregivers, conference participants, members, donors, health care professionals, members of the Legislative Assembly, representatives of the Ministry of Health, and corporate sponsors.

Poster presentations addressed a wide range of medical and social issues surrounding Alzheimer's disease and related dementia. Some of the presentations looked at delivering exercise interventions through the use of telehealth for rural and remote residents; the use of supplements for long-term care residents diagnosed with dementia; developing dementia screening tools for northern Aboriginal seniors; and factors influencing satisfaction with telehealth videoconferencing in a memory clinic for rural seniors.

Presentations were made by the Saskatchewan Research Chair in Alzheimer's Disease and Related Dementia, Dr. Darrell Mousseau from the U of S, and by Dr. Thomas Hadjistavropoulos from the U of R.



## Research Showcase 2010

Derrick Larsen, Regina Qu'Appelle Health Region (RQHR)  
Research Connections Grant

### Fourth annual RQHR research showcase

Over 130 researchers and health care stakeholders attended the fourth annual event. The Showcase was a forum for health researchers to share information, recognize innovative work, and network with their peers from a variety of disciplines.

Keynote speaker, Dr. Sameer Deshpande, associate professor in marketing at the University of Lethbridge, Faculty of Management, delivered an informative and often humorous presentation about how social marketing can be a powerful tool in influencing behavioural change. The event also included presentations from Jonathan Misskey from the Region's Department of Surgery and Craig Schmidt from the Saskatchewan Transplant Program.

During the poster viewing session, attendees had the opportunity to learn about 43 research projects conducted within or affiliated with the region.

## Research Connections Grants

### Catherine Arnold

Physical Therapy, Medicine, U of S  
*Falls Prevention in Seniors across the Continuum of Care Conference 2011*

### Lesley Biggs

Women's and Gender Studies, Arts and Science, U of S  
*Women's Health and Gender Matters in Saskatchewan: Mapping Research Initiatives, Gaps and Opportunities*

### Joanne Bracken

Alzheimer Society of Saskatchewan  
*Spotlight on Research: Alzheimer's Disease and Related Dementia*

### Angela Busch

Physical Therapy, Medicine, U of S  
*Research for the Future: Moving Physical Therapy Forward*

### David Cooper

Anatomy and Cell Biology, Medicine, U of S  
*38th Annual Conference of the Association for Physical Anthropology*

### Volker Gerdtz

Vaccine and Infectious Disease Organization, U of S  
*3rd Spring Prairie Infectious Immunology Meeting*

### Donna Goodridge

Nursing, U of S  
*The Home Care: Emergency Department Interface - Transformations in Care Delivery*

### Niels Koehncke

Medicine, Medicine, U of S  
*28th Annual OEMAC Scientific Conference*

### Ed Krol

Pharmacy and Nutrition, U of S  
*Western Canadian Medicinal Chemistry Workshop*

### Derrick Larsen

Research and Performance Support, Regina Qu'Appelle Health Region  
*Research Showcase 2010*

### Anne Leis

Community Health and Epidemiology, Medicine, U of S  
*in motion/en mouvement National Physical Activity Institute*

### Anne Leis

Community Health and Epidemiology, Medicine, U of S  
*10th Annual Saskatchewan Cancer Research Day*

### Janet McCabe

Nursing, U of S  
*Improving Health for Children: What Works?*

### Alan Rosenberg

Pediatrics, Medicine, U of S  
*Enhancing Care of Children with Rheumatic Diseases through Research, Education and Community Engagement*

### Ulrich Teucher

Psychology, Arts and Science, U of S  
*Innovations in Qualitative Research 2010*

### Brandy Winquist

Saskatchewan Epidemiology Association  
*Exposing ourselves: investigating everyday environments and their health impacts*

# HEALTH RESEARCH

## GROUP GRANTS

These grants provide support for groups of talented productive researchers developing and carrying out plans for high-quality health research, knowledge translation, and capacity-building at a level of productivity that would not be possible from individual researchers working on their own. The program supports groups of researchers who comprise an appropriate range of talent, experience and perspectives for tackling complex health issues of importance to Saskatchewan. There are three phases:



Above: **Dr. Nazeem Muhajarine** (left) and **Dr. Bonnie Jeffery** (centre) and members of the U of S SPHERU team  
Inset: Members of the SPHERU team at the U of R



### Phase One

Phase One grants support the formation and early development of health research groups that have the potential to evolve into highly productive and sustainable research groups capable of moving to Phase Two and securing major competitive funding.

### Phase Two

Phase Two grants provide operating funding to support group members to collaboratively produce and share research knowledge that will strategically position them to compete for major funding at the national level. Successful Phase Two groups have demonstrated potential to evolve into highly productive and sustainable research groups.

### Phase Three

Phase Three grants provide major operational support to sustain productive groups of talented and experienced researchers doing high-quality health research in areas of importance to the province.



*Airways Research Group, U of S* **Dr. John Gordon** (seated second from right) and **Dr. Don Cockcroft** (seated third from right)

## Bonnie Jeffery and Nazeem Muhajarine

Saskatchewan Population Health and Evaluation Research Unit (SPHERU)

### Better healthcare for all

Since 1999, researchers from SPHERU have conducted population health research with the mission to promote health equity by addressing population health disparities through policy-relevant research. Led by researchers Dr. Bonnie Jeffery at the U of R and Dr. Nazeem Muhajarine at the U of S, the group has a permanent presence in Saskatoon, Regina, and Prince Albert, and conducts research with communities across the province.

Building on SPHERU's years of expertise and extensive knowledge in population health research, the program "Population Health Intervention Research: Addressing Health Inequities in Vulnerable Populations" is applying an interdisciplinary approach. The research will take place in rural and urban Saskatchewan communities (Watrous, Wolseley, Ile-a-la-Crosse, Saskatoon) and will be completed with the collaboration of community partners and policy makers.

The ultimate goal for SPHERU's research program is to help reduce health inequities in Saskatchewan's most vulnerable populations, including children and both Aboriginal and non-Aboriginal seniors, in rural and remote communities as well as urban environments.

## John Gordon and Donald Cockcroft

Airways Research Group

### Breathing Easier

Chronic respiratory diseases such as asthma and chronic obstructive pulmonary disease affect the health of one in four Saskatchewan residents. Federal data show this ratio is disproportionately high in comparison to the rest of the country. It also shows a marked increase in the incidence of these diseases between 1994 and 2005. Drs. John Gordon and Don Cockcroft and the Airways Research Group are trying to find out why.

The group has collected evidence that some towns have substantially higher rates of respiratory disease than average. Estevan and Lloydminster are two such regions. Ambient airborne contaminants will be examined in these two communities and in Swift Current, which will serve as a control area. The group will look at levels of inhalable particulate matter and the chemical contaminants these particulates carry. At the same time, they will track and map the respiratory health of the inhabitants of these communities to determine whether changes in the levels of airborne particulates or their contaminants are co-related to exacerbations of respiratory symptoms.

This study has the potential to uncover the factors that are contributing to Saskatchewan's disproportionate incidence of chronic respiratory diseases.

## Health Research Group Grants

### Phase I

#### Jane Alcorn

Pharmacy and Nutrition, U of S  
Drug Design and Discovery Research Group

#### Mary Buhr

Agriculture and Bioresources, U of S  
Synchrotron-based canine model for prostate cancer

#### Elizabeth Quinlan and Roanne Thomas-MacLean

Sociology, Arts and Science, U of S  
Creative practices for people with cancer

#### Linda Wason-Ellam and Patricia Blakley

Curriculum Studies, Education, U of S and Pediatrics, Medicine, U of S  
The Interdisciplinary Fetal Alcohol Spectrum Disorder Research Network

#### Wen Jun (Chris) Zhang

Mechanical Engineering, Engineering, U of S  
BioNEMS - Biological Nano Electrical Mechanical System

### Phase II

#### Adam Baxter-Jones

Kinesiology, U of S  
Bone Imaging Research Group

#### John Gordon and Donald Cockcroft

Medicine, Medicine, U of S  
Airways Research Group

#### Helen Nichol and Bill Roesler

Anatomy and Cell Biology, Medicine, U of S and Biochemistry, Medicine, U of S  
Gene expression mapping using synchrotron light

### Phase III

#### Bonnie Jeffery and Nazeem Muhajarine

Social Work, U of R and Community Health and Epidemiology, Medicine, U of S  
Saskatchewan Population Health & Evaluation Research Unit

# PARTNERSHIP PROGRAMS

The purpose of Partnership Programs is to collaborate with other funding agencies to support health research in Saskatchewan and increase overall funding for health research in Saskatchewan. Any grants funded through matching programs must fit SHRF's mandate and objectives and must align with the goals of the provincial Health Research Strategy.

## *Saskatchewan Research Chairs Program*

The Saskatchewan Research Chairs Program is intended to attract, support and retain top-quality research leaders who are working in a provincial priority area and who contribute to capacity building and knowledge sharing in those areas. The award provides \$200,000 per year for up to five years, with up to \$100,000 per year from SHRF and the remainder from partner agencies. Saskatchewan Research Chair awards are renewable once for five years subject to funding availability, and provide a contribution to the award holder's salary, funds to carry out research, and support for trainees working with the Chair holder.

In 2010-11, SHRF announced two new Saskatchewan Research Chair opportunities: Multiple Sclerosis Clinical Research (partners: Saskatoon City Hospital Foundation and the U of S College of Medicine) and Heart Disease and Stroke (partner: Heart and Stroke Foundation of Saskatchewan). We received no applications for our October 2010 intake and have revamped our process for 2011-12. The new process includes a letter of intent from institutions wishing to host the Chair followed by a full nomination.

### **Career Opportunity:**

### **Saskatchewan Research Chair in Multiple Sclerosis Clinical Research**



The new Saskatchewan Research Chair in Multiple Sclerosis Clinical Research is being offered together with a tenure track position at the University of Saskatchewan College of Medicine. The focus is on clinical research to identify causes of multiple sclerosis, develop new or improved treatments and therapies, and ultimately find a cure.

The Saskatchewan Health Research Foundation (SHRF) and the Saskatoon City Hospital Foundation are pleased to announce this new \$1 million research chair partnership. Both partners will provide \$100,000 per year for five years.

This is the third Chair to be announced through SHRF's Saskatchewan Research Chairs Program, building health research capacity in critical areas for Saskatchewan.

For more information about this opportunity and application requirements, visit [www.shrf.ca](http://www.shrf.ca)

Supported by



saskatchewan  
**research chair**  
program

## Regional Partnership Program

The Saskatchewan-Canadian Institutes of Health Research Regional Partnership Program (Sask-CIHR RPP) is intended to increase the level of nationally funded health research in Saskatchewan. In its strategic plan for RPP, Saskatchewan's Advisory Committee has chosen the following CIHR programs as its priorities: Open Operating Grants; New Investigator Salary Awards; and Doctoral Student Awards. In addition, Fellowship Awards may be funded if resources permit.

The Sask-CIHR RPP has a \$2 million per year envelope, provided by CIHR and provincial funds. Provincial funding consists of \$700,000 per year from SHRF plus funds from the Ministry of Advanced Education, Employment and Immigration (Innovation and Science Fund) and Universities of Saskatchewan and Regina. SHRF manages these funds with its university and government partners through a provincial advisory committee.

Researchers apply directly to CIHR, which does the peer review and ranks the applications. Researchers with very good scores that are just below CIHR's high funding cut-offs are funded on 1:1 matching basis.

SHRF's agreement with CIHR for RPP in Saskatchewan will end in 2012-13. We don't expect it to be renewed, since CIHR is developing a new model for all its partnership programs.

It's time to begin planning how provincial dollars may be redirected in ways that continue to attract federal funding to support health research in Saskatchewan. SHRF will be consulting with CIHR and Saskatchewan partners about options in the coming months.

**Table 2: Partnership Grants and Awards, 2010-11**

Partnership Program	Awarded*		SHRF Amount (\$)	Partner Amount (\$)
	No.	Term (yrs)		
Saskatchewan Research Chair	0	n/a	0	0
<b>Sask-CIHR Regional Partnership Program</b>				
Operating Grants	8	2	809,274	809,274
New Investigator Salary Awards	1	5	150,000	150,000
Fellowships	0	n/a	0	0
Doctoral Awards	0	n/a	0	0
<b>Partnership for Health System Improvement (with CIHR)</b>	0	n/a	0	0
<b>Total</b>	<b>9</b>		<b>\$ 959,274</b>	<b>\$ 959,274</b>

\* Awarded amounts are for the full term of the grant.

## Partnerships for Health System Improvement Program

The Partnerships for Health System Improvement (PHSI) Program is a partnering program offered by CIHR's Institute for Health Services and Policy Research. It is designed to support teams of researchers and decision-makers interested in conducting applied health services research useful to health system managers and or policy makers.

The Ministry of Advanced Education, Employment and Immigration provides funds to SHRF from the provincial Innovation and Science Fund to match federal initiatives like PHSI. The matching ratio for PHSI in Saskatchewan is 4:1, where CIHR provides the larger amount.

Teams apply to CIHR, which manages the peer review process. SHRF's role is to encourage more applications in Saskatchewan, manage the provincial matching funds, and participate in the required relevance review. Demand for PHSI grants increased at CIHR and no grants were approved in Saskatchewan this year. SHRF is committed to supporting the program. We will be renewing our PHSI agreement with CIHR and expanding it to include applications to other CIHR institutes that have recently begun to offer the PHSI program.



### Dr. Angela Bowen

Nursing, U of S  
Sask-CIHR Regional Partnership Operating Grant

#### Putting mother first

Pregnancy is often a happy time for women, but for many it can be a difficult time as well. In fact, one out of every five women in Saskatchewan is depressed in pregnancy or postpartum.

Drs. Angela Bowen and Nazeem Muhajarine led a study to learn how pregnant women feel and act, and find out what kind of supports they have during pregnancy and soon after their babies are born. The study was intended to help provide better services for pregnant women. Women who participated were interviewed three times: once in early pregnancy, once in late pregnancy, and once shortly after the birth of their baby.

As a result of the findings, the MotherFirst Working Group was created to address the issue of inconsistent identification and treatment of women with maternal mental health problems. It brought together interdisciplinary stakeholders, including major professional health associations, community organizations, First Nations groups, and women with lived experience.

Together, the group prepared a document presenting policy recommendations to assist the Saskatchewan Ministry of Health and First Nations health leaders in improving the identification and treatment of women with mental health problems during pregnancy and the postpartum period.

Through research and multiple consultations, four key policy areas were identified to improve maternal mental health for Saskatchewan women. They include increased awareness of maternal mental health, universal screening for depression and anxiety in pregnant and postpartum women, improved access to appropriate treatment, and a provincial strategy to ensure consistent access to maternal health care.



## Dr. Rein Lepnurm

Public Health, U of S  
Sask-CIHR Regional Partnership Operating Grant

### *Regional study goes national*

Dr. Rein Lepnurm and the MERCURi Research Group, in collaboration with administrators and clinicians of the Saskatoon Health Region, have been examining the quality of care provided to patients with one of the following conditions: myocardial infarct, stroke, prostate disease and hysterectomy. Patients, nurses, therapists, physicians and managers in hospitals within the health region were surveyed using validated measures drawn from previous studies.

With support of the Regional Partnership Program, the surveys developed and tested in the medical, surgical and peri-operative units of hospitals in the Saskatoon Health Region, were expanded to Calgary and Halifax. The surveys were targeted to administrators, physicians, nurses, therapists and support care workers on the quality of care provided to patients and on working conditions in the hospitals.

The initial baseline results of the nationally funded study, *Managing Quality in Canadian Hospitals*, found that quality ratings of providers were significantly associated with technical and staff capabilities, the way work is organized, levels of distress, sense of accomplishment by providers of care, recognition by patients, administrators and colleagues, satisfaction with performance of duties, and organizational culture.

Most important to administrators was the finding that management factors account for 36 per cent of the providers' ratings of quality, meaning that the efforts of capable providers using the best methods and equipment in well designed facilities can be undermined by poor management.

## Saskatchewan-CIHR Regional Partnership Program

### Operating Grants

#### Angela Bowen

Nursing, U of S

*Feelings in pregnancy and motherhood - child and maternal outcomes*

#### Jonathan Dimmock

Pharmacy and Nutrition, U of S

*A multifurcate quest for tumour-selective and immunosuppressant Mannich bases and related compounds*

#### Graham George

Geological Sciences, Arts and Science, U of S

*The molecular basis of mercury toxicity*

#### John Howland

Psychology, Arts and Science, U of S

*Long-term consequences of prenatal infection on behaviour and brain: Role of glycogen synthase kinase 3*

#### Rein Lepnurm

Public Health, U of S

*Managing Quality in Canadian Hospitals*

#### Qiang Liu

Vaccine and Infectious Disease Organization, U of S

*Molecular mechanisms of hepatitis C virus-associated steatosis*

#### Adil Nazarali

Pharmacy and Nutrition, U of S

*Transcriptional control of myelin gene expression and myelination by oligodendrocytes in young adult and aged mice*

#### Elizabeth Quinlan

Sociology, Arts and Science, U of S

*From dissemination to intervention: new directions in knowledge translation for breast cancer survivorship*

### New Investigator Salary Awards

#### Saija Kontulainen

Kinesiology, U of S

*Revealing the role of adolescent growth, bone accrual and physical activity to adult bone strength at the wrist and hip*

# SPECIAL INITIATIVES

## *MS Call for Clinical Trials*

An estimated 3,500 people in Saskatchewan have Multiple Sclerosis (MS). In our province, it's difficult to find someone who does not know a family or individual living with MS, or who has been touched by this disease.

The Government of Saskatchewan in 2010-11 committed to advancing the science in MS diagnosis and treatment. In December, an announcement was made that \$5 million would be provided for research into clinical trials on the MS liberation treatment and that SHRF would provide the necessary oversight and management of the call for proposals.

Researchers were invited to submit letters of intent and plans for clinical trials of the liberation treatment for MS. The call for proposals focused on answering one research question: Is the liberation procedure a safe and effective treatment for MS patients to relieve symptoms and improve quality of life?

To be eligible for potential funding, the research team required clinicians and scientists comprising expertise in designing and managing effective and appropriate clinical trials, providing medical care for patients with MS, and leading a multi-disciplinary, multi-site research team;

The call for proposals was open to researchers from across Canada, but a portion of the research team must be from Saskatchewan, including someone with a faculty appointment at one of Saskatchewan's universities who is eligible to hold research grants at that institution.

Scientific peer review is scheduled for May 2011, with the funding decisions expected shortly after.



*At a news conference on October 19<sup>th</sup> 2010, Premier Brad Wall (top) June Bold (middle) and Hon. Don McMorris (bottom) announced \$5 million for MS liberation trials.*

## Saskatchewan Partners With Rick Hansen Institute

In March of 2011, Saskatchewan took a leadership role in the areas of spinal cord injury research and disability funding with a commitment by the provincial government of more than \$4.3 million for a comprehensive five-year Saskatchewan-based initiative.

In partnership with the national Rick Hansen Institute, the initiative consists of the following five-year commitments for Saskatchewan-based projects that will assist people with disabilities:

- \$1 million from the Ministry of Health for spinal cord injury related research;
- \$500,000 from the Ministry of Social Services in new funding for the Canadian Paraplegic Association of Saskatchewan;
- \$500,000 from the Office of the Provincial Secretary to fund the Clayton Gerein Legacy Fund; and
- in December, the Ministry of Tourism, Parks, Culture and Sport and Sask Sport Inc. announced \$2.3 million to help fund disability sports organizations, high-performance athletes with a disability, and accessible playgrounds.

SHRF will manage the spinal cord research on behalf of the Ministry of Health. Using our established protocols, SHRF will work with an advisory panel to define the research parameters, make a call for proposals, and then direct the funds toward research that will have a direct impact on those who have sustained spinal cord injuries.



*From left to right: Tourism, Parks, Culture and Sport Minister **Hon. Bill Hutchinson**; Rick Hansen; Daryl Stubel, Director, Income Assistance and Disability Services Division, Ministry of Social Services; and Social Services Minister **Hon. June Draude** at the March 15, 2011 announcement.*

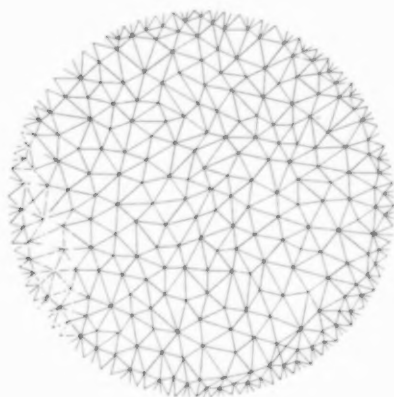
# PEER REVIEW

## *Grant Selection Process*

Our selection processes are founded on peer review, where panels of active researchers assess research proposals using excellence, relevance and feasibility as key deciding factors. Applications must also exemplify the stated objectives and priorities for the particular funding program. Our granting process has multiple steps shown here. Peer review for programs where SHRF is matching or partnering with other funding agencies may be done by the other agency, so long as SHRF requirements are met.

Our peer reviewers are not only instrumental in evaluating applications; they also provide valuable feedback to us about procedures, programs and trends in the health research community. Peer review committee members for 2010-11 are listed in this section.

We are extremely grateful to our dedicated review committee chairs and members who so generously provide their expertise on a volunteer basis for up to three-year terms. These dedicated individuals contribute to the collective wisdom that is critical to the quality and integrity of our selection processes.



## *Selection Steps*

- 1 SHRF invites reviewers to serve on committees.
- 2 Applicants submit applications to SHRF.
- 3 SHRF staff screen applications for completeness and eligibility.
- 4 Review committee chair, with SHRF staff, assigns applications to reviewers.
- 5 Reviewers prepare in-depth assessments based on program criteria and excellence.
- 6 Committee meets to discuss, rate and rank all applications.
- 7 Committee recommends meritorious applications for funding.
- 8 SHRF Board reviews and approves the committee's recommendations.
- 9 SHRF offers grants and awards to as many recommended applicants as resources permit.
- 10 SHRF staff ensures all conditions are met before authorizing payments to researchers' home institution.

# COMMITTEE MEMBERSHIP 2010-11

## Biomedical Personnel Awards Review Committee

**Michael Corcoran (3)**  
Department of Anatomy and Cell Biology  
College of Medicine  
University of Saskatchewan

**Graham George (3)**  
Department of Geological Sciences  
College of Arts and Science  
University of Saskatchewan

**John Howland (3)**  
Department of Psychology  
College of Arts and Science  
University of Saskatchewan

**Scott Murphy (3)**  
Department of Chemistry and  
Biochemistry  
Faculty of Science  
University of Regina

**Elemir Simko (3)**  
Department of Veterinary Pathology  
Western College of Veterinary Medicine  
University of Saskatchewan

**Sean Mulligan (1)**  
Department of Physiology  
College of Medicine  
University of Saskatchewan

**Lynn Weber (1)**  
Department of Veterinary  
Biomedical Sciences  
Western College of Veterinary Medicine  
University of Saskatchewan

**Yan Zhou (1)**  
Vaccine and Infectious Disease  
Organization  
University of Saskatchewan

## Biomedical Establishment Grant Review Committee

**Patrick Krone (Chair) (1)**  
Department of Anatomy and Cell Biology  
College of Medicine  
University of Saskatchewan

**David Schreyer (3)**  
Department of Anatomy and Cell Biology  
College of Medicine  
University of Saskatchewan

**Ed Krol (1)**  
College of Pharmacy and Nutrition  
University of Saskatchewan

**Peter Howard (1)**  
Department of Microbiology  
College of Medicine  
University of Saskatchewan

**Wolfgang Koester (1)**  
Vaccine and Infectious Disease  
Organization  
University of Saskatchewan

**David Palmer (1)**  
Department of Chemistry  
College of Arts and Science  
University of Saskatchewan

**Cheryl Waldner (1)**  
Department of Large Animal  
Clinical Sciences  
Western College of Veterinary Medicine  
University of Saskatchewan

**Andrew Wee (1)**  
Department of Chemistry and  
Biochemistry  
Faculty of Science  
University of Regina

## Socio-Health, Systems, and Clinical Review Committee

**Mary Hampton (Chair) (1)**  
Luther College  
University of Regina

**David Blackburn (3)**  
College of Pharmacy and Nutrition  
University of Saskatchewan

**Alexander Clark (2)**  
Faculty of Nursing  
University of Alberta

**Donna Goodridge (2)**  
College of Nursing  
University of Saskatchewan

**Darlene Juschka (3)**  
Women's Studies Program  
Faculty of Arts  
University of Regina

**Vanina Dal Bello-Haas (1)**  
School of Physical Therapy  
College of Medicine  
University of Saskatchewan

**Brenda Elias (1)**  
Department of Community Health  
Sciences  
Faculty of Medicine  
University of Manitoba

**Roland Dyck (1)**  
Department of Medicine  
College of Medicine  
University of Saskatchewan

**Rein Lepnurm (1)**  
School of Public Health  
University of Saskatchewan

## Collaborative Grants and Awards Review Committee

**Tom Wishart (Chair) (3)**  
Department of Psychology  
College of Arts and Science  
University of Saskatchewan

**Robert J. Hilsden (3)**  
Department of Medicine  
Faculty of Community Health Sciences  
University of Calgary

**Leigh Murphy (2)**  
Department of Biochemistry and  
Medical Genetics  
Faculty of Medicine  
University of Manitoba

**Colleen Norris (2)**  
Faculty of Nursing  
University of Alberta

**Heather Hadjistavropoulos (1)**  
Department of Psychology  
Faculty of Arts  
University of Regina

Figures in parentheses indicate number of years served, including current year.

# SUPPORTIVE ENVIRONMENT

## *Researcher Directory*

The Saskatchewan Directory of Health Researchers is a rich resource for searching out research experts - whether you're a researcher interested in finding potential colleagues or a decision-maker looking for an expert on a certain topic. There are now more than 450 researchers in this fully searchable directory which can be accessed through SHRF's website.

Development of the directory began with SHRF joining the Canadian Common CV (curriculum vitae) initiative, known as the "CCV," in 2007-08. The CCV is an online repository where researchers enter and update information about their experience, publications and funding record and use it for submitting grant applications to many different agencies. It reduces data entry for researchers and produces a standard format for peer reviewers to assess applicants' track records and qualifications.

When Saskatchewan researchers complete their CCV, they are invited to add their information to the Saskatchewan Directory of Health Researchers, which SHRF developed in response to many calls for a health research inventory in the province. It was made possible because of our existing partnerships with other agencies in Canada that designed a directory structure that could be expanded across the country. Information from our Saskatchewan directory is also included in the Interprovincial Directory of Health Researchers. SHRF greatly appreciates the leadership of CIHR on the CCV and the Interprovincial Directory.

CASRAI is a fully independent, not-for-profit organization that develops, maintains, and promotes standards for research administration data. CASRAI believes that standards development is a shared initiative and invites participation from all areas of research administration.

In joining CASRAI in 2010-11, SHRF sees a great opportunity to support the continuing development of standards for collecting information from researchers in an effort to minimize the challenges they face in interacting with multiple funding agencies and collaborating investigators.

## *Research Data Centre*

Statistics Canada Research Data Centres (RDC) are considered essential infrastructure for social-science inquiry leading to better policy decisions through evidence-based information. They provide secure access to Statistics Canada data, operate according to Statistics Canada regulations, and are part of a nationwide RDC network. While the range of potential research is broad, about half the usage across Canada is health-related. Since its opening in early 2008, the Saskatchewan Research Data Centre at the University of Saskatchewan, known as SKY-RDC, has fostered many studies and supported the training of individuals doing graduate and post-graduate studies.

SHRF was one of the partners that supported the establishment and operations of SKY-RDC. While SHRF funding ended this year, we continue to be active on SKY-RDC's management committee. The return on this investment in Saskatchewan's social science infrastructure is impressive. Under Dr. Carl D'Arcy's leadership, SKY-RDC has been very productive. As of early 2011, there were 47 active projects, and over 30 graduate students in Saskatchewan have had the opportunity to learn about and use the RDC and complex datasets in addressing social and health issues. Recently, SKY-RDC learned that federal funding from the Social Sciences and Humanities Research Council of Canada and CIHR for RDCs across Canada has been renewed and that Saskatchewan's centre will now have access to those federal funds for operational support.



## *Health Research Co-ordination*

For the past 11 years, SHRF supported special university-based positions focused on increasing health research activity and attracting more national health research funding to the province. Our health research co-ordination partnership with the U of S concluded in June of 2009, and our agreement with the U of R concluded in December of 2010.

At the U of S, the partnership created and supported the University Co-ordinator of Health Research position. In 2007-08, the partnership expanded to include the Saskatoon Health Region and supported a new, shared position between the U of S (Associate Vice-President Research, Health) and the Saskatoon Health Region (Vice-President of Research and Innovation) until 2009-10. This unique joint role is held by Dr. Beth Horsburgh and has been instrumental in fostering stronger linkages between research and practice, and building capacity for patient-oriented research.

At the U of R, the partnership contributed to two positions for facilitating health research opportunities. One is a grants facilitator position and the other a health research leader. The U of R has increased its health research capacity and activities in recent years and continues to see it as a strong growth area.

We appreciate working with our university partners in creating and supporting special positions aimed at growing health research in Saskatchewan. Both partnerships helped create focal points within the institutions for health research planning and visioning, leading to greater activity. No doubt, the strong base created by these unique partnerships will continue to yield results for many years to come.

## *Health Research Funding Forums*

To establish a stronger connection between SHRF and the health research community, we established a forum where SHRF will meet at least annually with the associate deans of research in health areas and other senior research administrators. The purpose is to share plans and recent developments at SHRF – both to increase awareness and receive feedback. This is also an opportunity for participants to raise other matters and ask questions about SHRF programs or policies and also to inform SHRF about developments in their institutions. The concept was well received, and both the Saskatoon and Regina forums were well attended. Feedback received at the forums led to several policy clarifications and updates. Considered a success, the forums will continue in 2011-12.

## *Health Data Forum*

In November, SHRF hosted a provincial forum on enhancing use of health data for research and quality improvement. We did this in partnership with the Saskatchewan Academic Health Sciences Network (SAHSN), Health Quality Council, U of S, U of R, RQHR, and SHR. The Forum grew out of a larger working group initiated by SAHSN to address the critical need for improving access to and use of health data in Saskatchewan for research, evaluation and planning. This has been a long-standing issue in many jurisdictions. As systems move towards electronic data collection and management, there is also a risk of losing valuable data and of not capturing new data in ways that support research and analysis.

The Forum generated a lot of interest – 82 people attended, including researchers from universities and the health system, health system representatives, including some health providers, and government representatives. The Forum was designed to be both educational and visionary. Objectives were to: educate researchers about current data sets and access requirements; reflect on possible improvements to the current system; look at best practices and models; and develop recommendations for creating a stronger health data system that supports research and quality improvement.

The report will go to the “parent” working group to develop and manage an action plan for considering and implementing the recommendations. Each organization involved in the working group will also be asked to consider the report’s findings and recommendations as part of its own organizational planning. The Forum was an important step and SHRF hopes to work with partners to sustain the momentum generated that day.

# MEASURING IMPACT

In addition to being a funder of health research, SHRF has a strong facilitative role. In our efforts to strengthen health research and help create a supportive environment, we bring people together to plan and discuss key initiatives. We also support partners who are taking the lead on addressing gaps or building on the unique strengths of Saskatchewan. Here we feature a few such projects we have initiated or supported this year.

## *Balanced Scorecard*

For a second year, SHRF has used the Balanced Scorecard (BSC) as a framework to manage its strategic plan and measure the plan's effectiveness. The BSC has enhanced our ability to demonstrate accountability to stakeholders and show the impacts and contributions of SHRF and health research in Saskatchewan on the economy, health care system, and health of Saskatchewan people. One unique quality of SHRF's BSC is it is aligned with the Canadian Academy of Health Sciences framework outlining how best to measure return on investment in health research. Therefore, SHRF's BSC is a tool that not only assesses organizational effectiveness, but also SHRF's contribution to the longer-term impacts of health research.

## *Provincial Health Research Strategy Mid-term Evaluation*

On behalf of the Ministry of Health, we completed the mid-term evaluation of the provincial Health Research Strategy. Its purpose was to assess the progress and early outcomes of the Strategy halfway through its 10-year term.

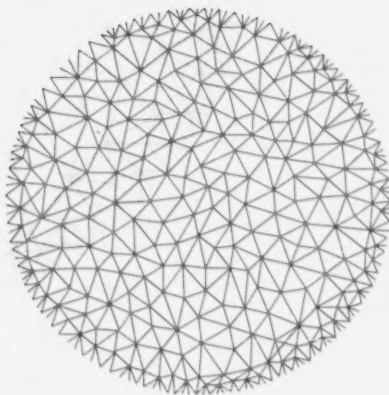
SHRF formed an expert panel to provide advice on the evaluation project, make observations on the external evaluator's findings, and provide recommendations about the next five years of the Strategy. The expert panel reviewed key SHRF documents, examined the findings in the contractor's technical report, and drew upon their experiences and knowledge of the health research environment to provide their conclusions and recommendations. The final report was presented to the SHRF Board in June 2010 and to the Minister of Health in September 2010.

The panel observed that good progress has been made on the Strategy's implementation: the vision, priorities and plan still resonate with stakeholders. However, wider awareness and engagement are needed to achieve the full vision. The panel made five recommendations to address the issues identified in the evaluation and revitalize the Strategy for its next five years:

- 1) Renewal – Consult with colleagues about updating the Strategy and addressing issues identified.
- 2) Investment – Pursue stronger support and funding from government.
- 3) Performance – Support universities in setting performance targets and measures to help increase national success.
- 4) Engagement – Increase communications with stakeholders about the Strategy's directions.
- 5) Linkages – Encourage a stronger "pull" from the health system for research-trained personnel and research evidence.

SHRF has already made progress on the recommendations by:

- discussing the evaluation and future directions with government;
- informing university and health system leadership on the evaluation and initiating discussions on common actions to renew and advance the strategic themes and research priorities;
- collaborating with the universities to define research-related performance measures; and
- incorporating related actions into SHRF's own new strategic plan for 2011-15.



## Health Research Capacity in Saskatchewan: A Descriptive Report

In the summer of 2010, SHRF released a report called "Health Research Capacity in Saskatchewan: A Descriptive Report." It describes who and where Saskatchewan health researchers are and what types of health research are being done in Saskatchewan. This descriptive information was drawn from the Saskatchewan Directory of Health Researchers and gives us a general understanding of the health research capacity in our province. Plans are being made to update the report for release in 2011-12.

One interesting outcome from our analysis was that 67 per cent of Saskatchewan researchers were doing work in one or more of the provincial health research priority areas.

### Public Value Research Investment

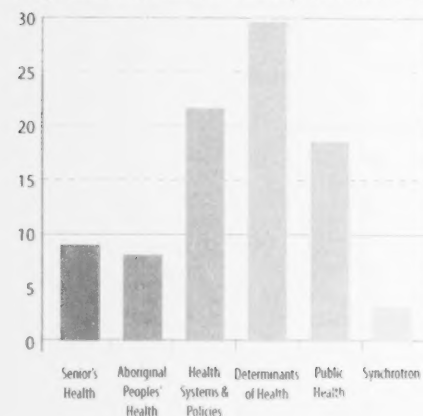
SHRF hired a research company to assess the value Saskatchewan residents placed on funding health research, as well as awareness and importance of SHRF and its research priorities. A total of 800 surveys were completed online with quotas set for age, gender and region to closely match Saskatchewan's general population. The majority (56.9 per cent) of respondents indicated that the work of SHRF is "very important" to Saskatchewan; another 30.0 per cent said it is "somewhat important."

There are a number of different areas of health research, including: health services and systems research; biomedical research, clinical research; and research on the social and environmental determinants of health. The largest majority (81.9%) of respondents feel it is 'very important' for Saskatchewan to be active and strong in health services and systems research. Not surprising, respondents indicated that "providing better health services and products" and "improving the health and well-being of Saskatchewan residents" is Saskatchewan's role in health and medical research.

More than three quarters of respondents thought that health and medical research to Saskatchewan's role is "very important" in the areas of:

- providing better health services and products;
- improving the health and well-being of Saskatchewan residents; and
- increasing the ability to attract and retain highly qualified people in health care and health education.

Percentage of researchers addressing each of the provincial health research priorities N = 241



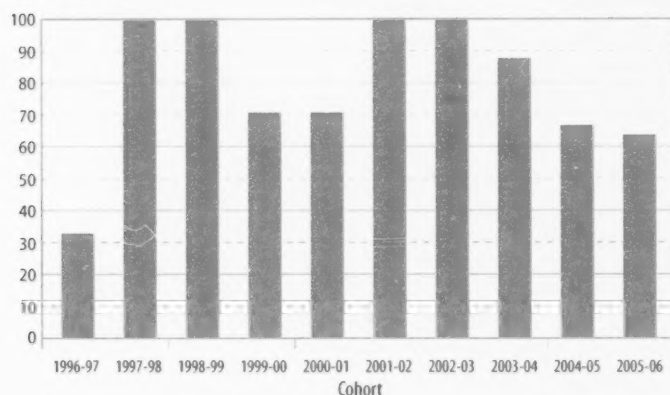
## Program Impact Five-Year Follow-up Survey

The purpose of this study is to assess the many outcomes and impacts of SHRF researchers five years post-award. The survey obtains information on researchers' ability to attain national funding, research productivity, and potential benefits to the economy, society and the health of Saskatchewan people. This is the 10<sup>th</sup> year of collecting this data and SHRF now has a rich data set showing trends over time.

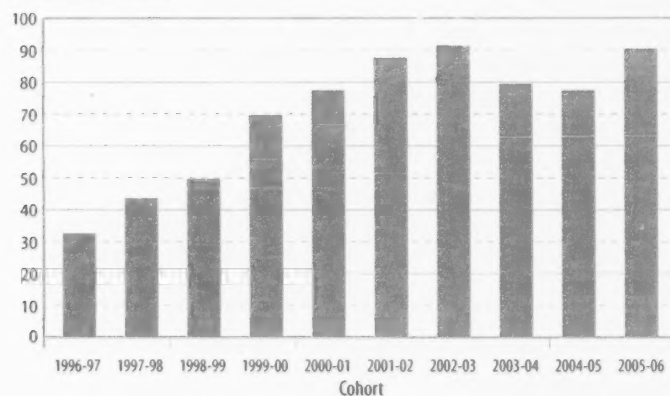
This year's five-year follow-up study focused on the 2005-06 New Investigator Establishment Grant holders and was completed over the summer of 2010. Key highlights of this study include:

- 11 of 13 (85 per cent) of grantees responded to the online survey;
- 10 of the 11 (91 per cent) remained in the province to conduct research over the last five years;
- 10 out of 11 (91 per cent) respondents had at least one primary author publication related to their SHRF funded work;
- Seven out of 11 (64 per cent) respondents had received another major grant (over \$25,000/year); and
- All respondents agreed or strongly agreed that the SHRF New Investigator Establishment Grant was very important in establishing their research program in Saskatchewan.

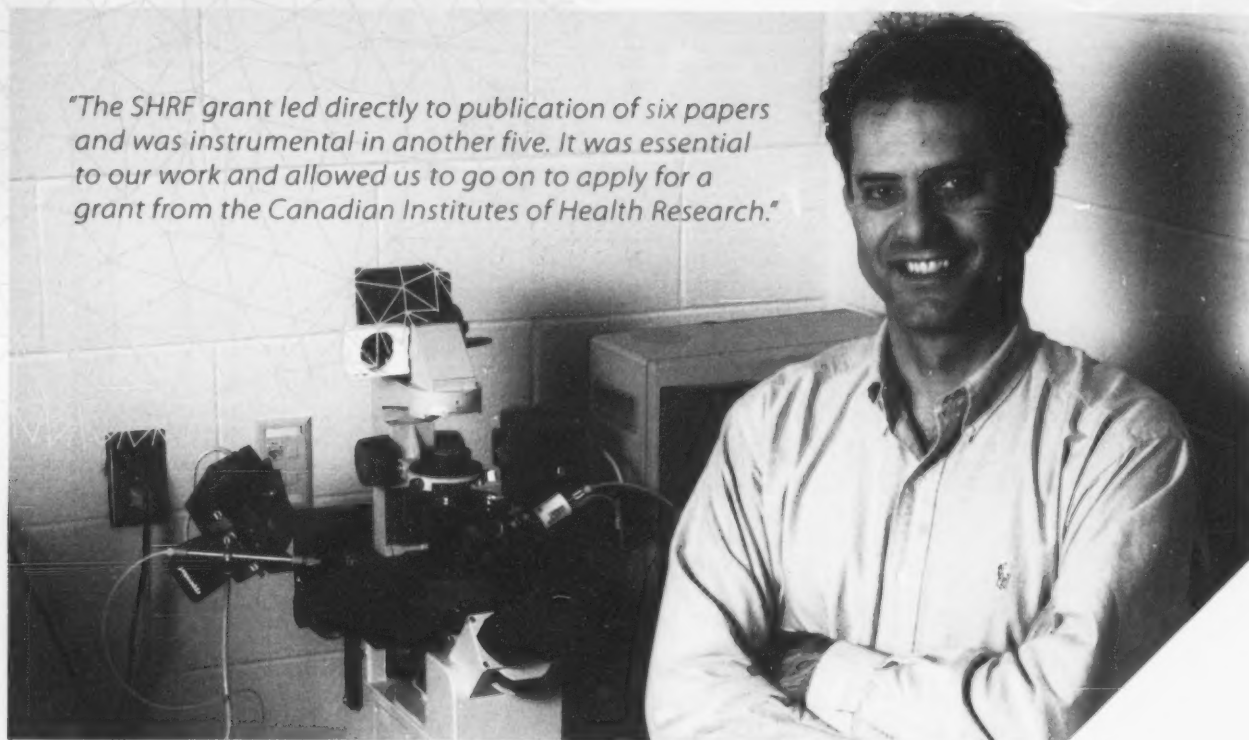
**Percentage of New Investigator Establishment Grantees with Another Major Grant**



**Percentage of New Investigator Establishment Grantees Staying in Saskatchewan**



*"The SHRF grant led directly to publication of six papers and was instrumental in another five. It was essential to our work and allowed us to go on to apply for a grant from the Canadian Institutes of Health Research."*



## HEALTH RESEARCH IMPACT HIGHLIGHT

### *Dr. Ali Honaramooz*

#### *Human Testing Made Ethical*

What if you could test the effects of environmental toxicants on humans? You would be right to question the legalities and ethics of such testing. After all, you wouldn't offer to expose a pregnant woman to high levels of a potentially dangerous substance, only to study the effects on her child some 20 years later.

"There is another way," says Dr. Ali Honaramooz, "and it's an entirely unique system that only we've developed. It exposes those potential environmental toxicants to human tissue without using humans."

Honaramooz is waiting to see if his application will be accepted for a grant from the Canadian Institutes of Health Research. He proposes to conduct his research on human tissue, but in an animal's body.

It started years ago when Honaramooz pioneered the development of a model to study the biology of testes cells. He was able to graft small pieces of testis tissue from farm animals onto mice. In time, the grafts developed complete spermatogenesis; that is, they produced viable sperm that came from that original donor.

The achievement was groundbreaking and it wasn't long before the results were published in *Nature*, and newspapers in several countries.

An establishment grant from SHRF in 2005-06 made it possible for Honaramooz to go further. He moved to grafting human testis biopsies. Donors were limited to adult males who were either

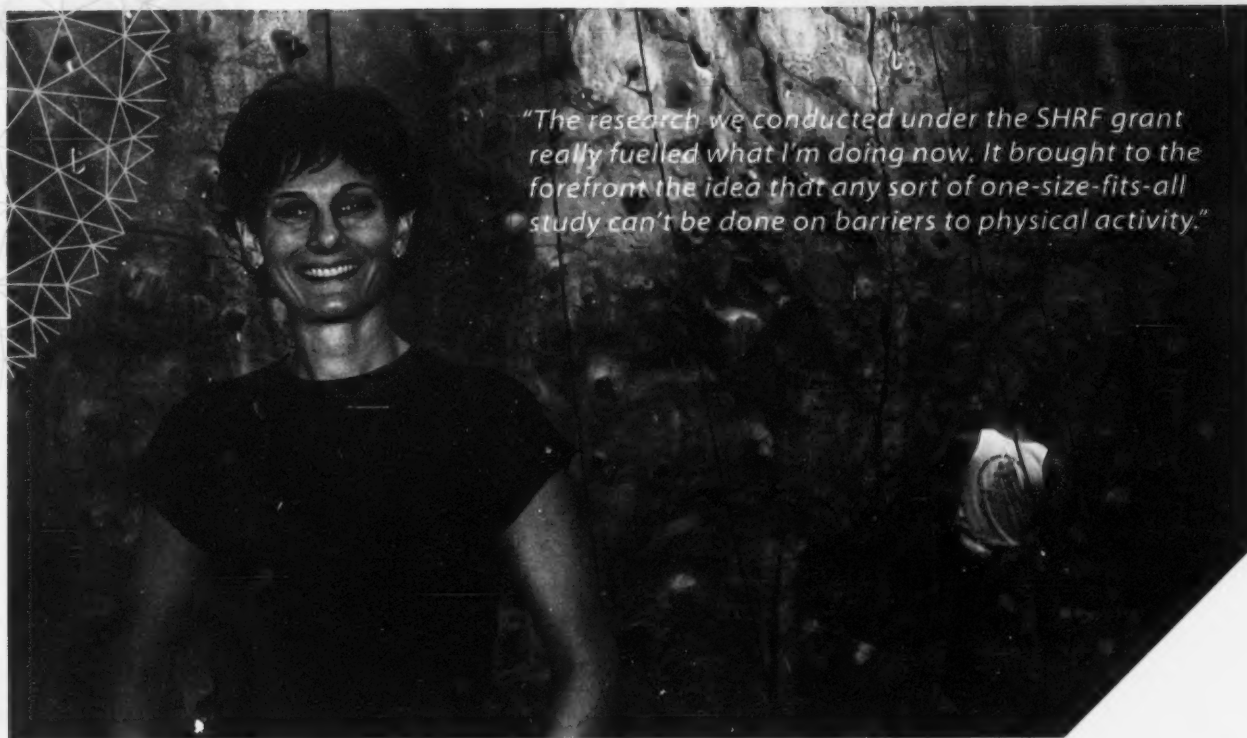
undergoing a sex change or being biopsied in the course of infertility treatments. As it turned out, the adult human donors did not get the same results as the younger farm animals.

"This was actually a good thing," says Honaramooz, "because it provided the means to study spermatogenesis from the very beginning and opened up the possibility to overcome infertility issues in children undergoing cancer treatments."

When an adult male is treated for cancer, semen samples are often frozen in case he is unable to produce sperm later in life. For young males not yet producing sperm, there has never been an option. With Honaramooz's system, a testis biopsy could be frozen. Viable sperm could then be produced years later.

The next step for Honaramooz is to use his system to test the effects of environmental toxicants on humans. "We know the concentration of sperm now in most males is almost half of what it was in the forties or fifties," he says. "One possible reason is because of the plastics we use." He proposes to graft testis samples from aborted fetuses. By exposing each sample to various levels of toxicants, he will be able to determine the effect they have on sperm count.

If Honaramooz is successful, the potential for his system could be far-reaching. In addition to identifying harmful substances, it could pave the way for the development of life-saving drugs. It could provide a short cut to test the safety of these drugs on humans – tests that would otherwise require years of clinical trials.



## HEALTH RESEARCH IMPACT HIGHLIGHT

### *Dr. Nancy Gyurcsik*

#### *Promoting Physical Activity for People With Arthritis*

There are obvious barriers to physical activity for people in all walks of life – lack of motivation, poor weather conditions, time restrictions. But there are also less obvious constraints, those that are specific to a certain population. Will identifying those hurdles make them easier to leap? Will understanding those challenges encourage people to overcome them?

It is this type of thinking that is leading Dr. Nancy Gyurcsik to explore the barriers to physical activity among people who live with arthritis. "I want to get an even better understanding of not only the traditional barriers, but the more specific factors that have to do with arthritis and that could also influence their activity," says Gyurcsik. She intends to examine variables extending from arthritis pain intensity to pain acceptance, to determine the influence they have on activity levels.

Gyurcsik is applying for project funding, with co-investigators Dr. Larry Brawley and Dr. Kevin Spink, to the Canadian Institutes of Health Research. Their success thus far has stemmed from parallel lines of research: an earlier study of physical activity promotion in people with arthritis, under a grant from the Social Sciences and Humanities Research Council (SSHRC), and the development of an innovative approach to promoting physical activity in first-year university students, under a two-year New Investigator Establishment Grant awarded from SHRF in 2005-06.

"We were the first to show that beyond the similar barriers we all have to being active, there are unique ones to particular populations," says Gyurcsik. "I would say that was the key contribution as a result of the grant."

Gyurcsik's research under the SHRF grant aimed at promoting physical activity in first year university students because she noted, "It was a key transition point in younger persons' lives where physical activity declines." The first year of the grant explored what made it challenging for these young people to participate in regular physical activity, while the second part of the project included the creation of an intervention program to help young people become more active.

Two groups of female first year university students were assembled. Both received twice-weekly instruction on using the U of S Fit Centre and being active. The first group received no other guidance, becoming the control group. The second also learned to identify their unique barriers and had opportunities to talk about ways to manage them. They also discussed the benefits of scheduling a regular activity and continuing it independently, after the program.

The activity levels of both groups were tracked over the six-week period of the program and for an additional three months. The research indicated that it is not enough to make physical activity programs available to first year students; it is also necessary to provide the psychological tools required to be active on their own.

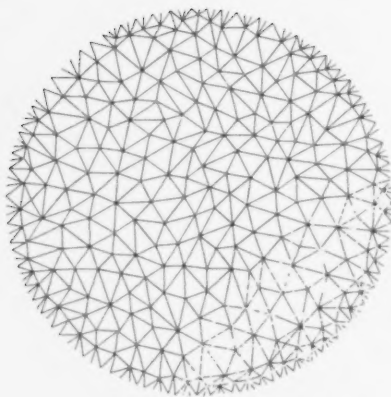
Gyurcsik is now applying her findings to her research on the unique barriers to physical activity for people with arthritis. By applying the same principles, she hopes to identify their specific conflicts, then to overcome them. Through a process that builds the psychological skills of the participants and allows them to be more active, Gyurcsik believes she can improve the lives of people living with arthritis.

# KNOWLEDGE TRANSLATION

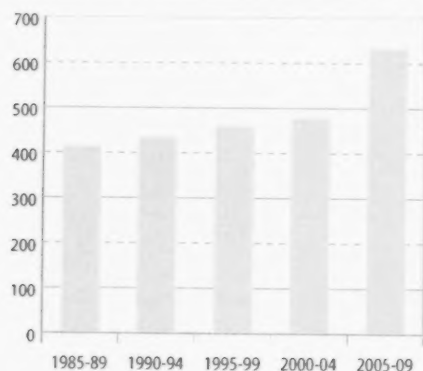
Knowledge translation (KT) - sharing and using health research - is a major theme in the provincial Health Research Strategy. It is also reflected in SHRF's legislated mandate to disseminate information about the research we fund and its results.

## *Health Research in Action*

SHRF's Health Research in Action Framework offers ideas and guidelines on how to share and use health research. While it was developed several years ago, the Framework offers insights and guidance that are still very relevant. SHRF developed the Framework after wide consultation that included researchers from across the spectrum from biomedical to population health, as well as communicators, charitable agencies, health systems managers and providers, and university managers and leaders. The framework contains a planning tool that any agency can use to assess its investment in knowledge translation and plan for improvements. The key message is that KT is a critical process that varies depending on the type of research and that needs special attention. This occurs by including it in strategic and operational plans, budgets, job descriptions, and reward systems. Feedback to SHRF indicates that agencies have employed the tool and found it useful.



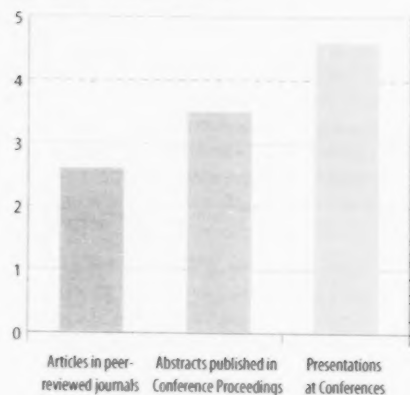
**Average Number of Medical Science Publications by Saskatchewan Researchers**



**Percentage of Scientific Publications in Saskatchewan with Collaborations Between Academic and Non-Academic Sectors**



**Average Number of KT activities from SHRF Establishment Grantees**



## Researcher Publications

Bibliometrics are the study of scientific publishing patterns. SHRF works with the National Alliance of Provincial Health Research Organizations and CIHR to acquire and interpret this data from Science Metrix.

Scientific publications are just one form of knowledge translation - but a key one in the scientific environment - in which our researchers participate. As displayed in the graph, according to calculated five-year averages, Saskatchewan researchers have shown a steady increase in the number of medical science publications between 1985 and 2009.

Bibliometric data also shows us that our university researchers are collaborating more with the non-academic sector. Using five-year averages, the percentage of publications in Saskatchewan where academics collaborate with non-academic sectors has increased steadily from 1985 to 2009.

## Researchers' KT Activity

SHRF follows up with New Investigator Establishment Grant recipients five years after receiving their award. An important part of this follow up report is the researcher's KT activities since receiving their SHRF grant. The graph shows results from the 2010-11 survey, meaning the respondents are from the 2005-06 Establishment Grant cohort.

Results show that SHRF Establishment Grant researchers produced on average 2.6 primary author publications, 3.5 abstracts in conference proceeding, and 4.6 conference presentations. In subsequent follow-up studies, the list of KT activities being tracked by SHRF has grown to include media stories in web, print, or television, and presentations of results to community or industry partners.

# DISSEMINATION AND PROMOTION

SHRF works to spread the news about and promote health research excellence in this province. Through these activities, SHRF is being accountable to the people of Saskatchewan by sharing information about the innovative and exciting research being funded by public money. These efforts also foster connections between researchers and stakeholders, links that help them to share and use health research knowledge for the benefit of the people of our province.

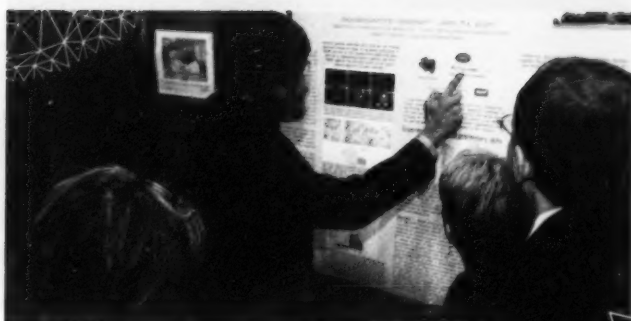
## *SHRF Achievement Award 2010*

**Dr. Heather Hadjistavropoulos**

*Psychology, Arts, U of R*

Dr. Heather Hadjistavropoulos from the University of Regina was selected by a blue ribbon panel to receive our top honour, the SHRF Achievement Award, this year. As a researcher, author, teacher, scientist and professor of Psychology at the University of Regina, Dr. Hadjistavropoulos is currently driving the movement toward Internet Cognitive Behaviour Therapy. She has made major contributions to improved health status by assessing the impact of anxiety on patients. This kind of health research is important as it directly relates to a patient's quality of life and also leads to the development of measures that more thoroughly assess the quality of patient care.





In 2010-11, SHRF completed a communications audit and consultation with members of the health research community, government, health-related not-for-profits, business groups, and staff. A number of recommendations were received that included: being more proactive with communications while supporting our health research sector relationships year-round; addressing the unique needs and expectations of our different stakeholders for information and knowledge about our activities and the impact of health research in Saskatchewan; telling more stories especially of how health research impacts the community, the health system, and the public policy imperatives of the Government; build stronger awareness within all levels of Government; and renew our activities, events and brand.

The input received has already been used to redefine SHRF communications focus and refresh our brand. As we develop a stronger external communications persona, SHRF will continue to reaffirm our ability to provide stronger dissemination and promotion activities that meet and exceed the expectations of our critical constituents. Our website continues to be a core communications channel, with news and information on funding programs and partnerships, as well as brief summaries on all SHRF-funded researchers and the source for all of the reports and publications mentioned in this annual report. The website is also the entry point for the Saskatchewan Directory of Health Researchers. SHRF Notes, our quarterly electronic newsletter, continues as a conduit of information to about 800 subscribers in the health research community.

The Santé! Awards Evening is SHRF's highlight networking event of the year, where we celebrate research success and hand out excellence awards. It is held annually during Health Research Week in early December. About 200 researchers and members of Saskatchewan's health research community attended the December 2nd event at Saskatoon's TCU Place. The evening included a poster session for SHRF-funded researchers that allowed them to discuss their projects with colleagues and VIPs, followed by a short program for the awards. Special guests included the Honourable Don McMorris, Saskatchewan Minister of Health, who was on hand to present the awards and congratulate the winners. Once again, we recognized our Top Researcher Award winners. Individuals who ranked highest in the New Investigator Establishment Grant and Postdoctoral Research Fellowship competitions. The winners in the New Investigator Establishment category were Dr. Eriq Lukong (Biomedical) and Dr. Lori Hanson (Socio-Health). Top honours in the Postdoctoral Research Fellowship category went to Dr. Rita Gruodyte (Socio-Health) and Dr. Jake Pushie (Biomedical).

SASKATCHEWAN HEALTH RESEARCH FOUNDATION  
**FINANCIAL STATEMENTS**  
FOR THE YEAR ENDED MARCH 31, 2011

2010-11  
ANNUAL  
REPORT

## Report of Management

Management is responsible for the integrity of the financial information reported by the Saskatchewan Health Research Foundation.

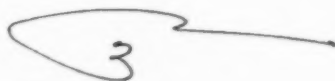
Fulfilling this responsibility requires the preparation and presentation of financial statements and other financial information in accordance with Canadian generally accepted accounting principles that are consistently applied, with any exceptions specifically described in the financial statements.

The accounting system used by the Foundation includes an appropriate system of internal controls to provide reasonable assurance that:

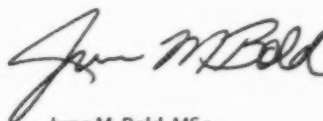
- transactions are authorized;
- the assets of the Foundation are protected from loss and unauthorized use; and
- the accounts are properly kept and financial reports are properly monitored to ensure reliable information is provided for preparation of financial statements and other financial information.

To ensure management meets its responsibilities for financial reporting and internal control, board members of the Foundation discuss audit and financial reporting matters with representatives of management at regular meetings. Foundation board members have also reviewed and approved the financial statements with representatives of management.

The Provincial Auditor of Saskatchewan has audited the Foundation's statement of financial position, statements of operations, change in net financial assets and cash flow. Her responsibility is to express an opinion on the fairness of management's financial statements. The Auditor's report outlines the scope of her audit and her opinion.



Terry Baker  
Board Chair



June M. Bold, MSc  
Chief Executive Officer

## INDEPENDENT AUDITOR'S REPORT

To: The Members of the Legislative Assembly of Saskatchewan

I have audited the accompanying financial statements of the Saskatchewan Health Research Foundation, which comprise the statement of financial position as at March 31, 2011, and the statement of operations, change in net financial assets and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards for Treasury Board's approval, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

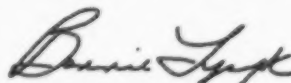
An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

### *Opinion*

In my opinion, the financial statements present fairly, in all material respects, the financial position of the Saskatchewan Health Research Foundation as at March 31, 2011, and the results of its operations, changes in its net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Regina, Saskatchewan  
June 24, 2011



Bonnie Lysyk, MBA, CA  
Provincial Auditor

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION**  
**STATEMENT OF FINANCIAL POSITION**  
**As at March 31**

	<u>2011</u>	<u>2010</u>
<b>Financial assets</b>		
Cash and cash equivalents (Schedule 2)	\$ 85,004	\$ 1,202,219
Accrued interest receivable	130,095	44,793
Accounts receivable	80,640	14,845
Short-term investments (Schedule 2)	3,079,685	1,616,104
Long-term investments (Schedule 2)	8,397,304	3,736,086
	<u>11,772,728</u>	<u>6,614,047</u>
<b>Liabilities</b>		
Deferred revenue (Note 6)	5,408,279	267,917
Accounts payable and accrued liabilities	42,766	60,463
Payroll liabilities	22,553	18,504
Grants payable	5,272,899	4,571,770
	<u>10,746,497</u>	<u>4,918,654</u>
<b>Net financial assets</b>	1,026,231	1,695,393
<b>Non-financial assets</b>		
Tangible capital assets (Note 3)	49,953	47,003
Inventory	3,211	8,460
Prepaid expenses	22,355	23,479
	<u>75,519</u>	<u>78,942</u>
<b>Accumulated surplus</b>	<u>\$ 1,101,750</u>	<u>\$ 1,774,335</u>

Commitments (Schedule 3 and Notes 2(d) and 4)

(See accompanying notes to the financial statements)

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION**  
**STATEMENT OF OPERATIONS**  
**For the Year Ended March 31**

	2011		2010
	Budget	Actual	Actual
	(Note 10)		(Note 12)
<b>Government Contributions</b>			
Ministry of Health	\$ 5,421,000	\$ 5,377,865	\$ 6,296,000
Ministry of Advanced Education, Employment and Immigration	400,000	352,773	448,083
<b>Non-Government Contributions</b>			
Alzheimer's Society of Saskatchewan	100,000	100,000	3,000
Donations and Sponsorships	-	6,060	
Other Revenue (Note 7)	195,000	246,598	397,845
<b>Total revenue</b>	<b>6,116,000</b>	<b>6,083,296</b>	<b>7,144,928</b>
<b>Expense</b>			
<b>Research funding</b>			
Saskatchewan Health Research Foundation programs	4,052,452	4,120,147	3,841,096
Partnership programs (Note 5)	1,300,000	1,252,774	1,282,671
Infrastructure partnerships	-	-	75,000
Program support	189,264	211,636	159,012
Dissemination and promotion	278,616	253,338	354,511
Impact Analysis	160,574	130,773	129,540
<b>Leadership and management</b>			
Board	44,800	36,196	34,344
Administrative	742,107	751,017	651,599
<b>Total expenses (Schedule 1)</b>	<b>6,767,813</b>	<b>6,755,881</b>	<b>6,527,773</b>
<b>Annual (deficit) surplus</b>	<b>\$ (651,813)</b>	<b>(672,585)</b>	<b>617,155</b>
Accumulated surplus, beginning of year		1,774,335	1,157,180
<b>Accumulated surplus, end of year</b>		<b>\$ 1,101,750</b>	<b>\$ 1,774,335</b>

(See accompanying notes to the financial statements)

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION  
STATEMENT OF CHANGE IN NET FINANCIAL ASSETS  
For the Year Ended March 31**

	<b>2011</b>	<b>2010</b>
	<hr/>	<hr/>
<b>Annual (deficit) surplus</b>	\$ (672,585)	\$ 617,155
Acquisition of tangible capital assets	(28,335)	(39,744)
Disposal of capital assets	172	-
Amortization of tangible capital assets	25,213	17,423
	<hr/>	<hr/>
	(2,950)	(22,321)
Use (acquisiton) of inventory	5,249	(8,460)
Acquisiton of prepaid expense	(59,246)	(60,979)
Use of prepaid expense	60,370	57,844
	<hr/>	<hr/>
	6,373	(11,595)
	<hr/>	<hr/>
<b>(Decrease) increase in net financial assets</b>	(669,162)	583,239
Net financial assets, beginning of year	1,695,393	1,112,154
	<hr/>	<hr/>
<b>Net financial assets, end of year</b>	\$ 1,026,231	\$ 1,695,393
	<hr/>	<hr/>

(See accompanying notes to the financial statements)

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION**  
**STATEMENT OF CASH FLOWS**  
**For the Year Ended March 31**

	2011	2010
	<hr/>	<hr/>
<b>Operating transactions</b>		
Annual (deficit) surplus	\$ (672,585)	\$ 617,155
Non-cash items included in annual surplus:		
Amortization of tangible capital assets	25,213	17,423
Loss on Disposal of capital assets	172	-
Bond amortization	(60,361)	(87,905)
Net change in non-cash working capital items:		
Accrued interest receivable	(85,302)	(5,545)
Accounts receivable	(65,795)	25,816
Inventory	5,249	(8,460)
Prepaid expenses	1,124	(3,135)
Deferred revenue	5,140,362	17,917
Accounts payable and accrued liabilities	(17,697)	14,070
Payroll liabilities	4,049	(16,972)
Grants payable	701,129	221,252
	<hr/>	<hr/>
Cash provided by operating transactions	4,975,558	791,616
<b>Capital transactions</b>		
Cash used to acquire tangible capital assets	(28,335)	(39,744)
	<hr/>	<hr/>
Cash applied to capital transactions	(28,335)	(39,744)
	<hr/>	<hr/>
<b>Investing transactions</b>		
Purchase of investments	(8,826,260)	(2,680,958)
Proceeds from disposal and redemption of investments	2,761,822	2,458,915
	<hr/>	<hr/>
Cash used by investing transactions	(6,064,438)	(222,043)
	<hr/>	<hr/>
<b>(Decrease) increase in cash and cash equivalents</b>	(1,117,215)	529,829
Cash and cash equivalents, beginning of year	1,202,219	672,390
	<hr/>	<hr/>
<b>Cash and cash equivalents, end of year</b>	\$ 85,004	1,202,219
	<hr/> <hr/>	<hr/> <hr/>

(See accompanying notes to the financial statements)

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION  
NOTES TO THE FINANCIAL STATEMENTS  
MARCH 31, 2011**

**1. Establishment of the Foundation**

On January 31, 2003, *The Saskatchewan Health Research Foundation Act* (S.S. 2002, c.S-21.1) came into force establishing the Saskatchewan Health Research Foundation (Foundation). The Foundation is responsible for organizing, managing and allocating most provincial health research funding in Saskatchewan and for ensuring that supported research fits with the Province's health research priorities and leads to benefits for health and the health system in Saskatchewan. The Foundation is the lead agency on implementing the provincial *Health Research Strategy*.

**2. Accounting Policies**

Pursuant to standards established by the Public Sector Accounting Board (PSAB), the Foundation is classified as an "other government organization." The Foundation uses generally accepted accounting principles applicable to government. The following accounting principles are considered to be significant.

**a) Revenue**

The Foundation's main revenue for operations is contributions from the Ministry of Health – General Revenue Fund with other revenue coming from partnerships, interest and miscellaneous revenue. Contributions are unrestricted and are recognized in the year received or receivable.

Restricted contributions from the Ministry of Advanced Education, Employment and Immigration are used for federal partnership opportunities such as the Canadian Institutes of Health Research (CIHR) Regional Partnership Program (RPP) and the CIHR Partnerships for Health System Improvement Program (PHSI) (see notes 5 and 6). These contributions are recognized in the year expenses are incurred.

**b) Measurement uncertainty**

The preparation of financial statements in accordance with PSAB accounting principles requires the Foundation's management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of commitments at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

**c) Tangible capital assets**

The recognition and measurement of tangible capital assets is based on their service potential. Purchases of furniture and office equipment over \$250 and computer hardware and software over \$500 are recorded at cost as a capital asset. Purchases below these amounts are expensed as incurred. Amortization is recorded on a straight-line basis as follows:

Furniture	10 years
Office Equipment	5 years
Computer Hardware and Software	3 years
Leasehold Improvements	length of lease

Normal maintenance and repairs are expensed as incurred.

**d) Research grants and awards expense**

Grants and awards expense is recorded when eligibility has been determined and the grant and/or award has been authorized. Awarded funds are sent to the recipients' home institution to manage and disburse. Funds not spent during the term of a research grant are treated as a recovery in the year that this is determined.

**d) Research grants and awards expense (cont'd)**

**Internally administered awards**

The Foundation holds annual funding competitions through which applications are adjudicated by experts based on excellence and relevance. Terms vary and are often multi-year. For internally administered multi-year grants and awards, the Foundation assesses eligibility and provides authorization on a yearly basis (see Schedule 3, Schedule of Future Research Funding Commitments).

**Externally administered awards**

For some partnership programs, the Foundation's partner administers the grants and awards. For example, CIHR currently administers RPP and PHSI grants and awards. For externally administered multi-year grants and awards, the Foundation records the full amount of the expense in the year that authorization for funding is received from CIHR.

**e) Investments**

Investments are valued at amortized cost.

**f) Basis of accounting**

The financial statements are prepared using the accrual basis of accounting.

**3. Tangible Capital Assets**

	Furniture and Equipment	Leasehold Improvements	2011 Totals	2010 Totals
Opening cost	\$ 104,915	\$ 48,848	\$ 153,763	\$ 114,119
Additions during the year	28,335	-	28,335	39,744
Disposals during the year	(13,987)	-	(13,987)	(100)
Closing cost	119,263	48,848	168,111	153,763
Opening accumulated amortization	65,327	41,433	106,760	89,437
Amortization for the year	21,505	3,708	25,213	17,423
Disposals during the year	(13,815)	-	(13,815)	(100)
Closing accumulated amortization	73,017	45,141	118,158	106,760
Net book value of tangible capital assets	\$ 46,246	\$ 3,707	\$ 49,953	\$ 47,003

**4. Lease Commitments**

At March 31, 2011, the Foundation had the following lease commitments:

	2012	2013	2014
Office lease	\$ 77,145	\$ 35,358	\$ -
Photocopier lease	3,181	-	-
Postage meter lease	926	926	154
	\$ 81,252	\$ 36,284	\$ 154

## 5. Partnerships

The Foundation periodically enters into funding partnerships, often spanning more than one year, to help achieve its goals and objectives. In 2010-11 the Foundation provided research funding through the following partnerships:

### **Saskatchewan – Canadian Institutes of Health Research (CIHR) Regional Partnership Program (RPP)**

In a partnership that started in 1999 and has been extended to 2012-13 the Foundation provides funds to match funding from the CIHR-RPP on a 1:1 basis to support Saskatchewan health researchers and research projects. In 2010-11, the Foundation used \$352,773 of the \$400,000 received for federal partnership opportunities from the Ministry of Advanced Education, Employment and Immigration (from the Innovation and Science Fund) for this program (see note 6).

### **Canadian Institutes of Health Research (CIHR) Partnerships for Health System Improvement Program (PHSI)**

Since 2005-06, the Foundation and CIHR have been in partnership to provide funds to support teams of researchers and decision makers interested in conducting applied and policy-relevant health research useful to health system managers and/or policy makers and strengthening the Canadian health care system. Funding is matched on a 1:4 basis by the Foundation and CIHR respectively (see note 6).

### **Saskatchewan Research Chair Program**

In 2009-10, the Foundation and the Alzheimer Society of Saskatchewan (ASOS) formed a partnership to co-fund a Saskatchewan Research Chair in Alzheimer Disease and Related Dementia through the Saskatchewan Research Chair Program. In 2010-11, the Foundation awarded the Chair and received \$100,000 from the ASOS for the first year of the award.

## 6. Deferred Revenue

From 2007-08 to 2009-10, the Ministry of Advanced Education, Employment and Immigration provided \$150,000 annually to the Foundation from Saskatchewan's Innovation and Science Fund to administer matching funds for the CIHR – PHSI grant program. In 2010-11, the Ministry of Advanced Education, Employment and Immigration provided \$400,000 to the Foundation from Saskatchewan's Innovation and Science Fund to participate in federal partnership opportunities. From 2009-10 to 2010-11, the Ministry of Health's Workforce Planning Branch provided \$66,000 to support the creation of a Research Chair in Quality Improvement Science and Interprofessional Education (QI Chair) at the University of Saskatchewan. In 2010-11, the Ministry of Health provided \$5,050,000 to fund clinical trials for the multiple sclerosis (MS) liberation procedure.

	Ministry of Health		Ministry of Advanced Education Employment and Immigration		Total
	MS Clinical Trials Initiative	QI Chair	PHSI	Federal Partnership	
Opening balance	\$ -	\$ 66,000	\$ 201,917	\$ -	\$ 267,917
Additions	5,050,000	66,000	-	400,000	5,516,000
Disbursements	(22,865)	-	-	(352,773)	(375,638)
Ending balance	\$ 5,027,135	\$ 132,000	\$ 201,917	\$ 47,227	\$ 5,408,279

## 6. Deferred Revenue (cont'd)

Government transfers with restrictions are recorded as deferred revenue in accordance with the Restricted Assets and Revenues section of the PSAB Handbook. The Restricted Assets and Revenue Section will no longer apply to government transfers effective with the implementation of the new Government Transfers section of the PSAB Handbook. The Foundation intends to implement the new Government Transfers Section effective April 1, 2011. The Foundation is currently assessing the potential impact of this on its March 31, 2012 financial statements.

## 7. Other Revenue

In 2010-11, other revenue generated by the Foundation included interest of \$174,163, recoveries of \$28,160, rental revenue of \$24,416 and additional internally generated revenues of \$19,859.

## 8. Related Party Transactions

Included in these financial statements are transactions with various Saskatchewan Crown Corporations, ministries, agencies, boards and commissions related to the Foundation by virtue of common control by the Government of Saskatchewan, and non-Crown corporations and enterprises subject to joint control or significant influence by the Government of Saskatchewan (collectively referred to as "related parties").

Routine operating transactions with related parties are recorded at the agreed upon rates charged by those organizations and are settled on normal trade terms. These transactions and amounts outstanding at year-end are as follows:

	2011	2010
Recovery and miscellaneous revenue:		
University of Regina	\$ 5,128	\$ -
University of Saskatchewan	47,596	242,602
Research grant, administrative and occupancy expenses:		
Capital Pension Plan - employee benefits	40,057	36,611
Saskatchewan Association of Health Organizations	-	1,500
Saskatchewan Opportunities Corporation - Innovation Place	154,251	148,659
Saskatoon Health Region	620	2,180
SaskTel	13,309	13,547
University of Regina	596,893	972,638
University of Saskatchewan	4,788,592	4,228,678
Other	19,181	1,897
Accounts receivable	17,145	51
Investments	200,000	200,000
Accounts payable and accrued liabilities	29,039	10,536
Grants payable	5,272,899	4,571,770

The Foundation pays Provincial Sales Tax to the Ministry of Finance on all its taxable purchases. Taxes paid are recorded as part of the cost of those purchases.

Other transactions with related parties and amounts due to or from them are described separately in these financial statements and the notes thereto.

## 9. Financial Instruments

The Foundation has the following financial instruments: accrued interest receivable, accounts receivable, investments, accounts payable, and grants payable. The following paragraphs disclose the significant aspects of these financial instruments. The Foundation has policies and procedures in place to mitigate the associated risks.

**9. Financial Instruments (cont'd)**

**a) Significant terms and conditions**

There are no significant terms and conditions associated with the financial instruments, other than investments, that may affect the amount, timing, and certainty of future cash flows.

Significant terms and conditions for investments are described separately in these financial statements and the accompanying notes.

**b) Interest rate risk**

The Foundation is exposed to interest rate risk when the value of its financial instruments fluctuates due to changes in market interest rates.

The Foundation's receivables and payables are non-interest bearing. Due to the short-term nature of these, as well as cash and short-term investments, interest rate risk is minimal. As market interest rates fluctuate the market value of long-term investments moves in the opposite direction. This risk will affect the price the Foundation could sell the investments for prior to maturity.

**c) Credit risk**

The Foundation is exposed to credit risk from potential non-payment of accounts receivable or investment income and principal.

Most of the Foundation's receivables are from charitable partnership agencies and the provincial government; therefore the credit risk is minimal.

The Foundation's investments consist of provincial and federal government bonds, corporate bonds, promissory notes, treasury bills and bankers acceptances with large Canadian banks. The Foundation limits the credit risk of investments in corporate bonds by dealing principally with counterparties that maintain a credit rating of AA or higher as rated by Dominion Bond Rating Service or equivalent.

**d) Fair value**

For the following financial instruments, the carrying amounts approximate fair value due to their immediate or short-term nature:

Accrued interest receivable  
Accounts receivable  
Short-term investments  
Accounts payable  
Grants payable

The fair value of long-term investments is \$8,397,304 (2009-10 - \$3,736,086). The fair value is considered to approximate quoted market values.

**10. Budget**

The operating budget was approved by the Foundation's Board on April 7, 2010.

**11. Pension Plan**

The Foundation is a participating employer in the Capital Pension Plan, a defined contribution pension plan. Eligible employees make monthly contributions of 6% of gross salary with the Foundation contributing 6.45% of gross salary. The Foundation's financial obligation is limited to making required contributions. During the year, the Foundation's total contributions were \$40,057 (2009-10 - \$36,611).

**12. Comparative Information**

Certain prior year amounts have been reclassified to conform with the current year's presentation.

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION**  
**SCHEDULE OF EXPENSES BY OBJECT**  
**For the Year Ended March 31**

	2011		2010
	Budget	Actual	Actual
	(Note 10)		(Note 12)
Advertising and promotion	\$ 47,548	\$ 32,576	\$ 124,923
Amortization	20,050	25,213	17,423
Board expenses	44,800	36,196	34,344
Employee benefits	134,496	117,074	130,804
Employee salaries	652,968	646,468	610,133
Grants and awards	5,352,452	5,372,920	5,198,767
Office expenses	78,441	92,185	63,680
Office space	134,200	137,915	123,594
Professional Fees	190,255	205,044	147,985
Publications	29,702	21,182	20,684
Review committee expenses	17,198	14,793	12,615
Travel and meetings	65,703	54,315	42,821
	<u>\$ 6,767,813</u>	<u>\$ 6,755,881</u>	<u>\$ 6,527,773</u>

(See accompanying notes to the financial statements)

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION**  
**SCHEDULE OF INVESTMENTS**  
**As at March 31, 2011**

	MATURITY DATE	CARRYING VALUE	EFFECTIVE RATE
<b>Cash and cash equivalents:</b>			
Cash		\$ 50,887	
TD Waterhouse - cash		16,330	
TD Asset Management-cash		14,113	
Beutel Goodman-cash		3,674	
		<u>85,004</u>	
<b>Short-term investments:</b>			
Province of British Columbia	3-Apr-2011	13,998	1.000%
Province of British Columbia	6-Apr-2011	46,027	4.250%
Province of Ontario	2-Jun-2011	247,075	3.690%
Province of Ontario	13-Jul-2011	257,386	1.410%
Ontario Hydro	18-Aug-2011	477,458	1.410%
Province of Manitoba	5-Sep-2011	252,968	1.480%
Province of New Brunswick	1-Dec-2011	491,425	5.850%
Province of British Columbia	9-Jan-2012	493,347	5.750%
ICIC Bank GIC	18-Jul-2011	100,000	1.800%
AGF Trust Company GIC	17-Jul-2011	100,000	2.050%
Peoples Trust Company GIC	18-Jul-2011	100,000	1.750%
B2B Trust GIC	18-Jul-2011	100,000	2.050%
Equitable Trust GIC	18-Jul-2011	100,000	2.050%
Pacific Western Bank GIC	18-Jul-2011	100,000	2.000%
National Bank of Canada GIC	12-Sep-2011	100,000	4.730%
Laurentian Bank of Canada GIC	12-Sep-2011	100,000	4.720%
		<u>3,079,685</u>	
<b>Long-term investments:</b>			
Nav Canada	17-Apr-2012	198,347	3.434%
Wells Fargo	26-Jun-2012	315,364	5.100%
Wells Fargo	13-Sep-2012	148,945	5.200%
Province of Ontario	2-Dec-2012	404,372	1.950%
Province of British Columbia	18-Dec-2012	409,514	2.540%
Ontario Hydro	6-Feb-2013	335,889	2.280%
Province of Ontario	7-Feb-2013	335,880	2.280%
Ontario Hydro	1-Apr-2013	477,338	2.390%
Government of Canada	1-Dec-2014	605,115	2.000%
RBC Deposit Note	7-May-2012	77,274	4.530%
Government of Canada	1-Jun-2012	1,232,417	1.500%
Canada Housing Trust	15-Jun-2013	559,937	3.600%
Royal Bank Deposit Note	5-Jun-2014	207,454	4.970%
Province of British Columbia	18-Jun-2014	79,357	4.250%
Bank of Nova Scotia	25-Mar-2015	353,860	3.340%
Nav Canada	17-Apr-2019	321,212	5.304%
Province of British Columbia	17-Jun-2029	146,666	5.700%
Canada Housing Trust	15-Mar-2014	525,847	2.200%
Province of Ontario	8-Sep-2015	462,516	3.150%
Home Trust Company GIC	30-Apr-2012	100,000	2.750%
Bank of Nova Scotia	30-Apr-2012	500,000	2.700%
Saskatchewan Savings Bonds	15-Jul-2012	200,000	4.200%
HSBC Bank GIC	6-Dec-2012	100,000	4.900%
Laurentian Bank of Canada	6-Dec-2012	100,000	4.875%
Province of Manitoba Allocation Notes	27-Sep-2013	200,000	
		<u>8,397,304</u>	
		<u>\$ 11,561,993</u>	

(See accompanying notes to the financial statements)

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION  
SCHEDULE OF FUTURE RESEARCH FUNDING COMMITMENTS  
As at March 31, 2011**

The Future Research Funding commitments at March 31, 2011 were as follows:  
Note 2(d)

YEAR	SASKATCHEWAN HEALTH RESEARCH FOUNDATION PROGRAMS		TOTAL
2012	\$	3,385,533	\$ 3,385,533
2013		748,011	748,011
2014		200,000	200,000
2015		200,000	200,000
	\$	4,533,544	\$ 4,533,544

(See accompanying notes to the financial statements)

## PAYEE LIST

**FISCAL YEAR APRIL 1, 2010 – MARCH 31, 2011**

### Personal Services

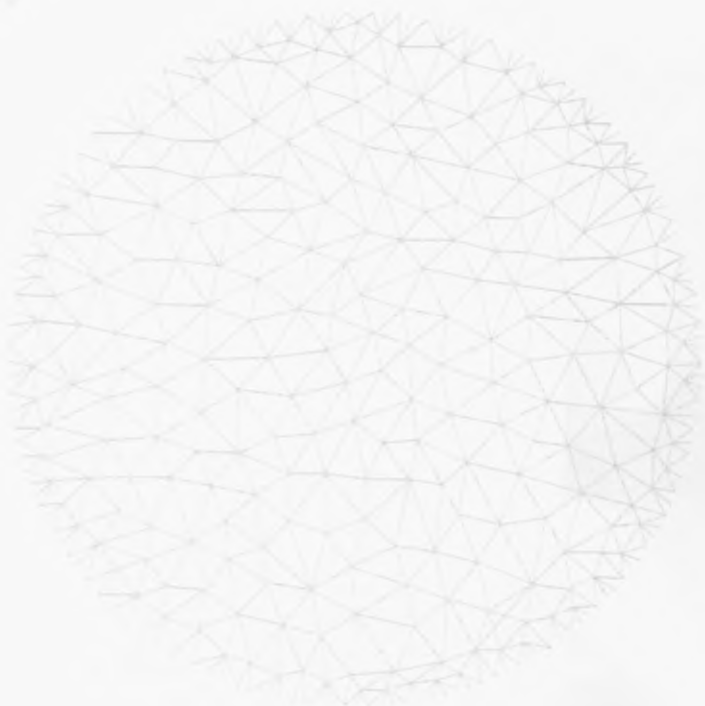
Listed are individuals who received payments for salaries, honoraria, and compensation for personal services in excess of \$50,000 from April 1<sup>st</sup>, 2010 to March 31<sup>st</sup>, 2011.

Bold, June	\$ 136,116
Evitts, Trina	59,260
Fortosky, Deborah	97,597
Odnokon, Patrick	<u>77,698</u>
	\$ 370,671

### Supplier Payments

Listed are payees who received payment for the provision of goods and services in excess of \$50,000 from April 1<sup>st</sup> 2010 to March 31<sup>st</sup> 2011.

Gryphon Reputation Management	\$ 98,789
WBM Office Systems	<u>58,484</u>
	\$ 157,273



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